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ARCHITECTURE
OF THE BRITISH ISLES

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A History of Architecture

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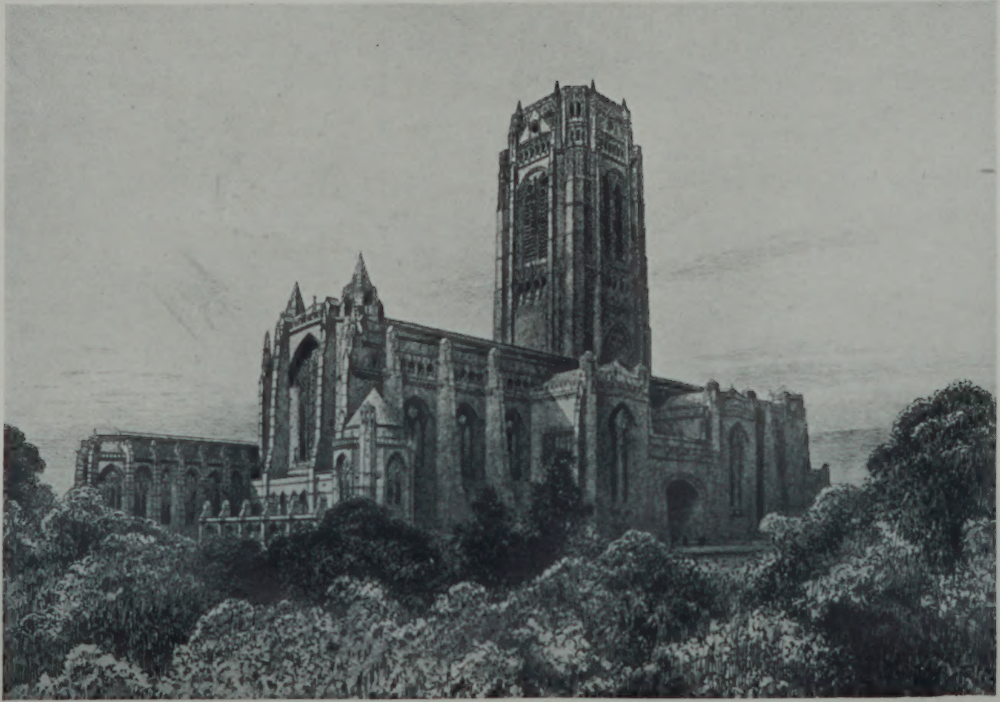

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LIVERPOOL CATHEDRAL.

An Outline
HISTORY *of* ARCHITECTURE
of the British Isles

by

P. L. DICKINSON

F.R.I.A.I. & M.T.P.I

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PREFACE

This book is not intended to throw any very new light on the problems that exist in connection with the architectural history of these islands.

I have felt, however, for a long time, that there was a need for a modest-sized book which would tell the story of our native buildings in a simple way, and with due regard to the social conditions which brought them into being. The importance of this point is dealt with in the introductory chapter. Many phases and developments occur in architecture which are controversial as to origin and purpose. Where such controversial points are dealt with here I have given my own views on them; some of these may seem to be out of proportion in relation to the whole scale of building development. The writing of a history of any sort must be the result of personal experience in life, and of knowledge gained through work, art and literature; and no two people will ever allow equal value to the same historical event. No doubt some critics will say that I have given too little space to Gothic, especially to ecclesiastical work – others that the English classic school does not receive enough attention. Such critics may be right, but I have given to each the position which, in my view, it deserves.

I have tried to avoid the monotony of illustrations produced in exactly the same technical manner, and have aimed at suiting the style of drawing to the class and age of building each illustrates ; thus primitive, early work is treated with a harder line and more rigid definition than is the mature phase of English Gothic.

Many illustrations are deliberately diagrammatic rather than pictorial.

Where photographs illustrate the points of a building better than drawings (as it seems to me) I have used them. In selecting the subjects, every effort has been made to show typical buildings, while avoiding the hackneyed examples, so far as possible.

No index is given, as I believe the sub-headings to the chapters are adequate for reference purposes.

I should like to express my most cordial thanks to the many kind people who have helped me with information, advice, and by the loan of illustrations. I am especially indebted to my friend, Mr. Frank Stephens, for the matter relating to Stonehenge, and to Mr. John Cooke for much help in connection with Irish work, on which he is a recognized authority, and to my old master, R. C. Orpen, for many charming pencil drawings, generously placed at my disposal.

Mr. Wilson Paterson, and Mr. Gillespie, of Edinburgh, have been more than kind in helping me in regard to Scottish work, and to Mr. George Pepler I owe a special debt of gratitude for placing his invaluable services at my disposal, in relation to my chapter on town planning.

Among others who have generously assisted with illustrations and in other ways, are Professor Reilly of Liverpool University, Sir Gilbert Scott, Sir Aston Webb, Sir Edwin Lutyens, Professor Richardson, Messrs. S. R. Day, E. Bradbury, H. G. Leaske, L. Steele, G. Darling, Caroë, Guy Dawber, Thirlwall, Jenkyns, Lamb, P. J. Lynch, Ralph Knott, Messrs. Hodges & Figgis, and Messrs. B. T. Batsford. I am greatly indebted for the loan of excellent photographs to the Great Western Railway Co., the London & North Eastern Railway Co., the editors of the *Architect* and the *Architect's Journal*. Parts of the nineteenth-century chapter and the introduction appeared in the *Irish Builder and Engineer*, by the courtesy of whose editor I am allowed to reproduce them here.

I claim two points of merit for this book. Although great attention has been paid at the present time to Waterloo Bridge, St. Paul's, and to the decay of the stone in the Houses of Parliament, I have resisted the temptation of illustrating these buildings. This is the first. Secondly, this is the only architectural history which deals with eighteenth-century work and mentions Blenheim without quoting Pope's lines on that spirited architectural achievement.

CHAPTER ONE

Introduction

THE SOURCES OF ARCHITECTURE OF THE BRITISH ISLES

ARCHITECTURE is the mother of the Arts. This is not to say that it is the oldest of them, as it certainly is not. We have ample evidence in the paintings of the cave of Altmira, and from numerous other examples of painting and sculpture scattered throughout the world, that these arts had been carried to an astonishing state of perfection in prehistoric times, when as yet man was in the Stone Age and had not developed from herdsman to agriculturalist. It is impossible to date these early paintings; some of them may be, perhaps, thirty thousand years old. We do not know, and until a great deal more light has been thrown upon the subject we must keep an open mind. However, we can be sure that these paintings and carvings preceded anything that can possibly be termed Architecture by thousands of years.

Yet, although Architecture is not the oldest of the arts, it still may fairly be called the mother art. If we study the period which can be definitely described as that of civilization in any part of the world, we find that, on emergence from a less cultural phase, architecture becomes of more and more importance, and reflects in its various branches the general level of creative activity existing among a group of tribes or a nation. It becomes a representation of the common life in terms of stone.

Painting and sculpture as representing the general outlook come later, and in the earlier stages of a civilization, invariably follow architecture, and are often dependent on it for their development and expression. It must be remembered that in the earlier stages of architectural activity there is none of the modern distinctions between those creative artists that exist to-day. Where we know enough of the local and detailed history to form definite judgments we find no line drawn between the sculptor, architect, painter, military engineer and, indeed, the poet. The specialization, which we take as a matter of course, in these activities, is a phenomenon of comparative modernity. The creative type of mind, more especially where it is concerned with art rather than engineering, or say chemistry, has only been forced to specialize and concentrate by the stress of social conditions of modern times. It is very important in aiming at a proper understanding of the essentials of all art to realize this.

Architecture, so little understood even by people of a generally high standard of education, is not a haphazard, individual, or deliberate fashioning of shape, or style, or plan. It is the natural result of the constructive energy of a civilized people in a particular form of activity governed by social and economic conditions of its time. Any school of Architecture which has tried to produce something self-consciously and deliberately new, for the sake of being new, has failed. The newness and necessary growth has always come with a change of conditions in life generally, necessitating a new outlook and method in building. If one is to get a clear understanding of the great architectural move·

ments in this country, or in the world generally, one must keep these essential facts clearly in mind.

The study of the history of building in the British Isles is simple, and at the same time difficult. It is simple because the information we seek is all there, and can be examined for the most part at first hand without reference to books, and without the necessity of tedious and, to many, impossible journeys and voyages; and, moreover, without the difficulty of studying references in a foreign language. On the other hand it is difficult because in the short period in time, regarded historically, covered by British building, we get an immense variety of style, purpose, material and detail. In no part of the world other than Western Europe do we get such rapidly changing conditions. The architectural history of England is all contained within a period of less than four thousand years, and 95 per cent of this is contained within the short space of one thousand years. The few examples that exist outside this latter period are rare, and scattered in geographical disposition, and of, comparatively speaking, widely divergent dates. These earlier examples of more primitive expression are, indeed, while of great archæological interest, of little architectural importance.

Before it is possible to discuss any art in a critical way it is essential to have a knowledge of its origin and inspiration. Art is rarely, if indeed ever, entirely indigenous: the more one probes into history, and the more one gropes back into the darkness beyond, the more obvious does it become that most, or indeed all, of the national arts and crafts, if not inspired by, were at least influenced from, some external source. Primitive man must here and there have begun to make certain creative enterprises which eventually became sufficiently crystallized for us to call art. But the level was by no means equal and certain early phases of civilization show a genius which was local and definite. These arts arrived at a state of maturity, or semi-maturity, and the form then in vogue was adapted by others than those who originated them. Often a conquering race was sufficiently intelligent to reap the benefit of a more advanced culture whose government they had overcome. In this case we get, at times, a vigour and freshness which has produced some of our greatest architecture.

It may be said with assurance that we know of no art which has been evolved by any primitive people and steadily developed by that people from their precultural period to civilized times without considerable outside influence, or an immigration of a new people to the land.

CHINA

The Far East is probably no exception to this. We know at present so little of the early history of China that the question here is largely speculative. It may be that it has evolved its own civilization, including naturally architecture, entirely without outside influence. This possibly may be so, and some high authorities have given it as their opinion that it is so, but we know practically nothing of the history of early man in the Far East, or where the cradle of that race lay. Probably the Mongolian civilization was a blend of several early Eastern cultures which influenced each other. It does, however, seem certain that it arose in the Far East, in what is now China, almost without contact with Mediterranean and Middle East peoples.

EASTER ISLAND

We get the same story of external influences and conquests affecting architecture everywhere. If we turn for a moment to the other side of the world we find that the recent researches on Easter Island, in the Pacific, have proved that there existed an archipelago containing a people who had reached a high level of craftsmanship. The great stone figures, and the huge masonry platforms worked from the hardest volcanic rock, show an amazing skill in design and execution. It is perfectly obvious that a people which had the skill to produce such work must have had a fairly advanced architecture.

Unfortunately this is lost to us through the subsidence and consequent submergence of the rest of the archipelago. If Easter Island had not survived the general settlement, we should have had no conception that such a civilization had ever existed. It may be that the population of this archipelago were a wave from the West and had reached a fairly advanced stage of cultural level when they settled in the Pacific.

At least it is fairly certain that the Polynesians are of Caucasoid type, and there is no evidence at all that they received anything from the ancient civilizations of the Pacific, Mexico and Peru. On the contrary, there is very strong evidence, so strong as almost amounting to proof, that the Polynesian peoples of the lost archipelago raided, and for a time subdued, the Incas of

Peru. This whole question is discussed at length and in much detail by W. T. MacMillan Brown in his fascinating book, *The Riddle of the Pacific.*

MEXICO AND PERU

If these eastward raids from the Pacific to the coast of America actually took place, as seems nearly certain, there is nothing to suggest any other recent connection with the Old World in the civilization of the Pacific coast of America. These were distinctly Mongolian in character, and it looks as if there has been two main and entirely distinct migrations in the dim past, one of a Mongol people to the Pacific slopes of America, and the other of a Caucasian to the Pacific archipelago, now submerged. There is then similar evidence of change, new blood, conquest and adaptation in the story of the Polynesian and Pacific slope civilization as there is in Europe, Asia and Africa.

But quite apart from any Polynesian raids there is clear proof of conquest and a readjustment by the inhabitants of both Peru and Mexico. The old idea that Mexico, as it existed when conquered by the Spaniards, had been evolved by one people starting as savages is now discredited; and the same tale of outside influences is told of this ancient and mysterious people as elsewhere. How far the Pacific states would have developed had they not had European customs imposed, it is impossible to say – one can only guess.

Mr. H. G. Wells suggests in one of his charts in his *Outline of History* that the Peruvians and Mexicans were of different origin; the Mexicans from Mongolian and the Peruvians from Egyptian stock. He also says that these two states were unaware of each other's existence. These suggestions are fanciful and must be considered with great caution. The architectures of Mexico and Peru are different in general character, but not so much so as to preclude possibility of a common origin.

Easter Island and the Pacific Coast of America are remote, but we learn the same lesson from them as we do from the Old World – the importance of new and imported elements, in the architectural development of all civilizations.

SOURCE OF BRITISH ARCHITECTURE

Prior to considering the history of building in the British Isles, then, it is necessary to describe, roughly, the main sources whence our native architecture was evolved. The same general forces, of course, applied throughout Western Europe: differences between the architectures of France, England and, say, Belgium are more a question of habit, climate and immediate social conditions than of essentials or source of origin. The divergence is far more marked in detail than in principle.

MEDITERRANEAN CIVILIZATIONS

What, then, was the immediate source and direct inspiration of our native architecture?

We can answer this quite definitely as being the architecture that arose in the great Mediterranean civilization – Egypt, Greece, Rome and Byzantium with their Colonies – but they in their turn were influenced by others; and, indeed, we do not know with any degree of certainty how the earliest of these – the Egyptians –

arose. Egypt, Crete and Babylon were all centres of civilizations of great antiquity, and there can be no doubt that they acted and reacted upon one another. We know far more of the ancient history of Egypt than we do of the other two as yet, but further research may bring new data to light which may suggest Babylon as being an even earlier civilization than Egypt or Crete, and the possible source of their inspiration. This is more archæology than architecture, and we need not here analyse these probabilities in any detail. We are concerned with the developed forms of building which directly brought about the styles of the British Isles.

EGYPT

Egypt was extremely well placed geographically, having outlets to both the Mediterranean and Eastern sea. This naturally helped her trade, and was of great advantage to her early development. In addition to this, once the art of building had been reached, there was an abundance of easily procured stone to be had locally. Limestone in the north, sandstone in the centre, and granite in the south were ready to the mason's hand. There was no timber useful for building purposes, so a stone construction was the rule from the beginning. This is an important point, as it is not generally realized how much a style is determined, and necessarily developed, by the quality of easily available material, and to a more limited extent by labour.

Climate also plays an important part in the development of style. Egypt was very favourably treated in this respect. Protection against heat was needed, but

PYRAMID OF CHEOPS.

PYLONS AT TEMPLE OF KHONSU.
BUILT BY RAMESES III.

nothing else had to be considered much, as is the case in countries where fairly extreme hot and cold weather occurs in the course of the seasons.

Egypt, then, had a simple problem to solve from the point of view of design. It was, to a great extent, this fact that brought about a style so monumental in quality, and with such purity and restraint of ornament and detail.

THE PYRAMIDS

The most important specimens of Egyptian architecture remaining to this day are the pyramids and the temples. The pyramids, of course, were tombs of important kings, and while it is more than probable that they served other purposes – astronomical and astrological – as well, we need not here concern ourselves with this aspect of their construction. The first, or great, Pyramid was erected by Cheops, somewhere about the period 3750–3550 B.C. The second Pyramid, by Cephson, a little later; and the third, by Mycerinos shortly after the second. These were all during the Fourth Dynasty, and the builders were father, son, and grandson of the latter. The Pyramid of Sakharah is much older, and it is still uncertain who built it and at what date. The great Pyramid is nearly 500 feet in height and its base over 700 feet each way.

The pyramids were not solitary or isolated buildings. They were surrounded by other tombs and the various offices of the priests attached to them, all contained probably in a paved court running round the base.

TEMPLES

The temples differ in one very important way so far as their purpose is concerned from those of Greece, Rome, or the Christian churches, with which we shall deal later. They were not places of public worship, but were only entered by the King and priests in their exercise of the mysteries of their religion. The temples were all oriented in relation to the sun and certain of the fixed stars. This orientation has not been exactly worked out in each case, but it is clear that in the main it had to do with the date on which the Nile came down in flood. The same feature is found in Babylonian temples, which are oriented in relation to the flooding of the Tigris and Euphrates. This question is fully discussed by many Egyptologists, and cannot be enlarged upon here.

PLAN AND DESIGN

The arrangement of the plan can be realized by a description of the Temple of Karnac which is typical.

The entrance was between pylons, in front of which were obelisks and an avenue of sphinxes forming the main approach. This entrance leads to a large open court containing a double colonnade on three sides and open to the sky in the centre. This in turn leads to the hypostyle Hall, which was lighted by means of a clerestory. Beyond this again is the cell surrounded by a passage, and beyond the cell a small hall. These last apartments must have been lighted artificially, or very imperfectly through the roof. The walls of the temples were generally of granite, or granite lined with brick, and the faces slope inward towards the top. This is termed a batter, and it has been suggested by some writers that this is a survival of a period of mud building where the old tradition has been carried on in the newer material, as is the case in certain architectural forms that have developed from wood into stone. The writer does not agree with this view, and considers this batter is what is known as a 'refinement' deliberately designed to improve the massing and proportion of the building. Openings are square-headed and covered with lintels, and we have no record of an arch being used in a temple, although the use of the brick arch was known to the Egyptians and freely used by them from early times. Professor Flinders Petrie has described a vaulted Tomb of the First Dynasty, and numerous other arches and vaults have been discovered and described. The temples had flat roofs composed of huge blocks of stone supported by the columns.

The capitals of the columns were usually a conventionalized form of the Lotus bud, or palm, and the shafts suggest the idea that they were taken from the papyrus reed bound together at intervals by bands.

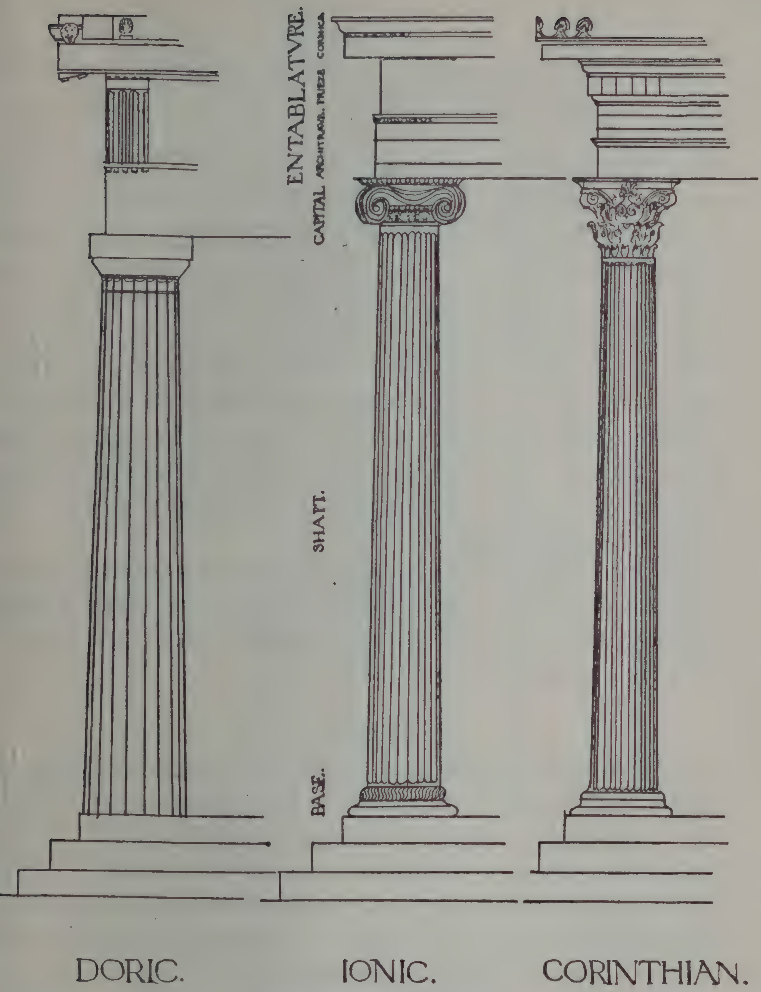
Colour was freely used in the decoration of the wall surfaces which were plain externally, and broken up by columns which are always detached. The main colours used were red, blue and yellow, and the hieroglyphics were tinted in these shades. These writings, for such they really were, as well as being decorative, recorded the history of the country, and it is mainly from them that the Egyptologists have found out so much of this wonderful people.

GREECE

The origin of the earliest population is doubtful, but there is evidence to suggest a migration from Asia. The geographical conditions were favourable to the maintenance of a series of small states and an open-air life which helped in the development of games, sports and dancing, with which activities the Greeks are usually associated in modern thought. There seems to be a gap between the older Ægean art and what is called Greek art, and it is fairly certain that a conquering race came in and assumed control somewhere about 1300 B.C. However, we cannot discuss the question in a brief introduction of this nature, and must only concern ourselves with the developed architecture of this important civilization. To us, in Britain, it is perhaps the most important.

As we invariably find, the geological formations of the country played an important part in its architectural development. Marble is freely obtained near Athens and elsewhere, and it is the use of this material that made possible the refinement of line and detail which are such important features in the style. Had Greece contained only granite or sandstone, Greek architecture and sculpture, as we know them, could never have existed.

The general development of Greek architecture was a logical process of refinement, and an increasing use of sculpture and carving as applied to buildings. As in Egypt, the style is consistently a trabeated one, and the arch is never used. This seems to have been a principle with Greek architects, as there is no doubt that the arch was perfectly well known to them.



THE GREEK ORDERS.

ORDERS

The Greeks invented the order, and, as this term is used frequently later, it may as well be defined here. The order in all architecture consists of the column with its base and capital, together with the entablature, which is the horizontal member supported by the columns. The entablature is subdivided with three main groups – the cornice or top portion, the frieze or centre portion, and the architrave or lowest portion.

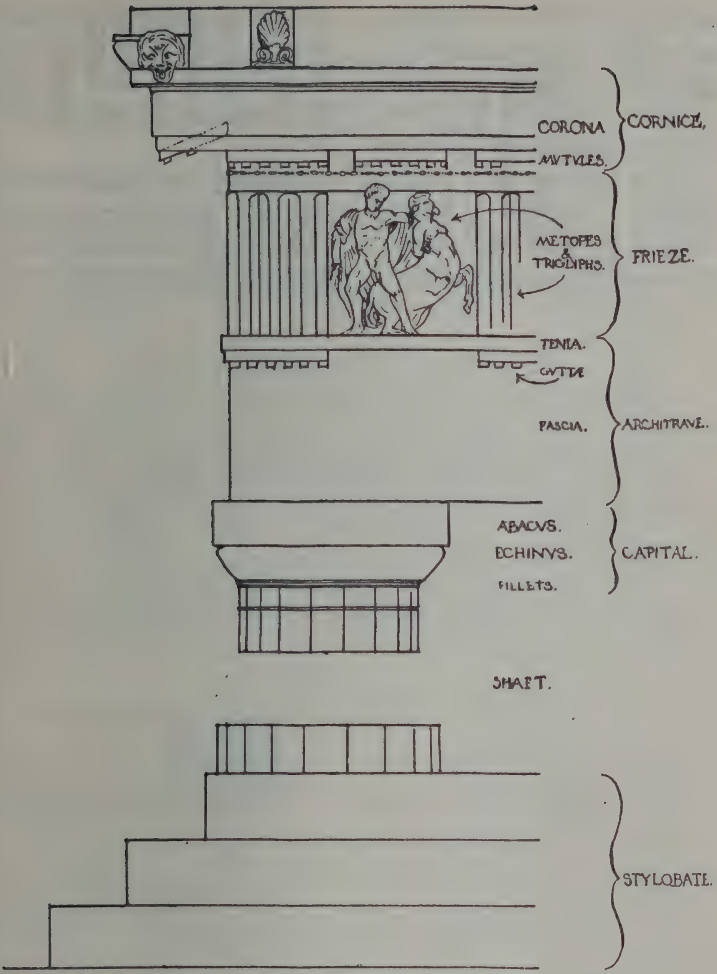
There are three orders, the Doric, Ionic and Corinthian, each of which varies in the proportions of their respective parts. It has been the custom to trace each of the orders to various sources, such as Egypt for the Doric and Corinthian, but there is no certainty about this and it is safer, until more evidence is available, to keep an open mind.

The first important building that we know of is the Temple of Corinth, built in 650 B.C., in the Doric style; between this date and 324 B.C. all the important buildings that remain were built.

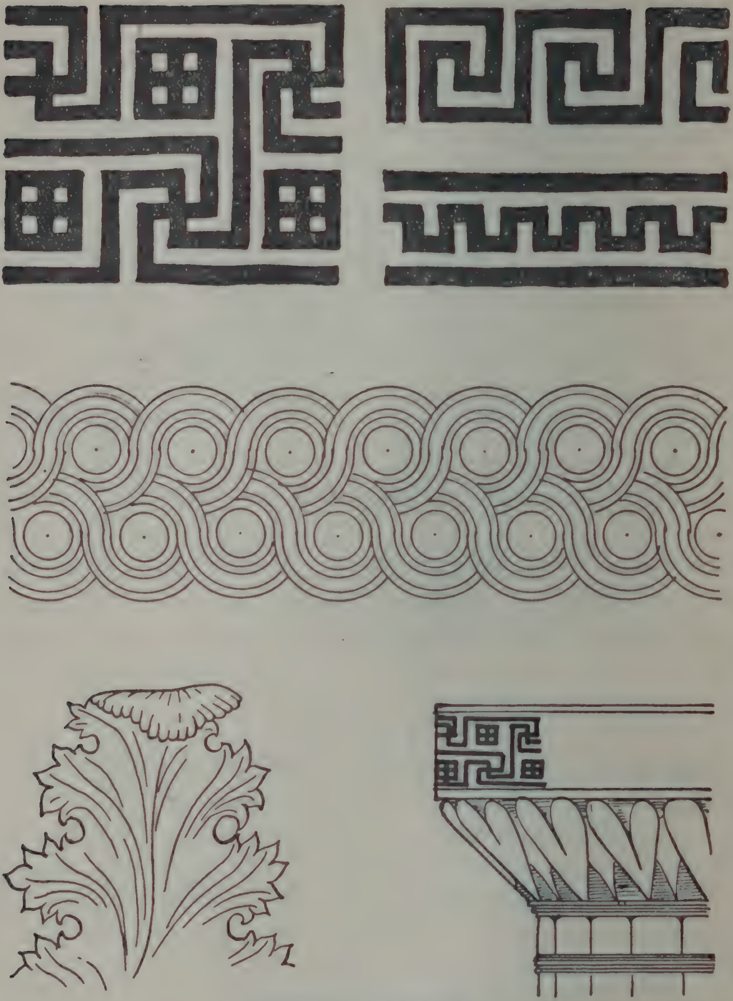
TEMPLES

The temples differ essentially from those of Egypt: they are all built to obtain the maximum effect externally, contrary to those of Egypt, where the decoration is all facing internal halls and courts. The temples were each dedicated to a god and were served by priests who were often only temporary, and who subsequently resumed ordinary duties as citizens.

There are many different styles of temples, and the plans varied enormously. One of the most beautiful of



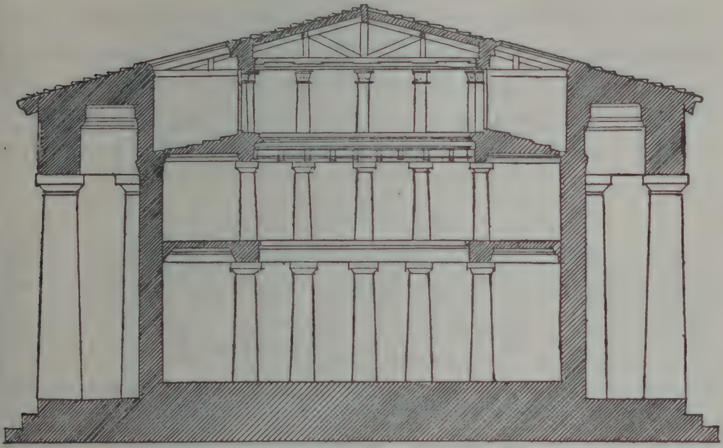
DETAIL – GREEK DORIC.



GREEK ORNAMENT.

the smaller examples is the well-known Tower of the Winds.

There is considerable difference of opinion as to how the larger temples were lighted. They had no windows. There have been many ingenious restorations on paper of the Parthenon, but there is no solution universally accepted as yet. On the whole, the theory of a long clerestory is the most convincing. (See diagram.)



THE PARTHENON.

The theatres were the largest buildings. They were, of course, open to the sky and the auditorium was usually cut out of a rocky slope in a semicircle, while the stage was built across the semicircle with a permanent background of an architectural nature.

No example of a palace or house remains intact, but from surveys and reconstructions the general plan and treatment are fairly well understood and there exists a vast literature on the subject.

Greek building is specially noted for its free use of closely spaced columns; its great refinement of detail and suitability of enrichment to the moulding on which it was carved; its monumental quality and general massing.

A tradition that Greek architecture was monochrome still exists, in spite of much that has been written to the contrary. We now know that colour, at first naturalistic, but eventually conventionalized, was universal.

The Greeks used colour freely and in a bold manner.

ROME

The date of the foundation of Rome is legendary and uncertain. Its early form of government by kings was replaced by a republican system somewhere about 500 B.C., about the time of the height of Greek architecture. About 270 B.C. Rome completed her conquest of the other Italian cities and started on the series of wars which were to make her mistress of the Old World. Carthage, Macedonia and Greece were all finally conquered in 146 B.C. The conquest of Syria and Gaul followed, and in 55 B.C. Cæsar landed in England.

Pure Roman architecture is generally taken as that constructed from the first to the fourth century A.D.

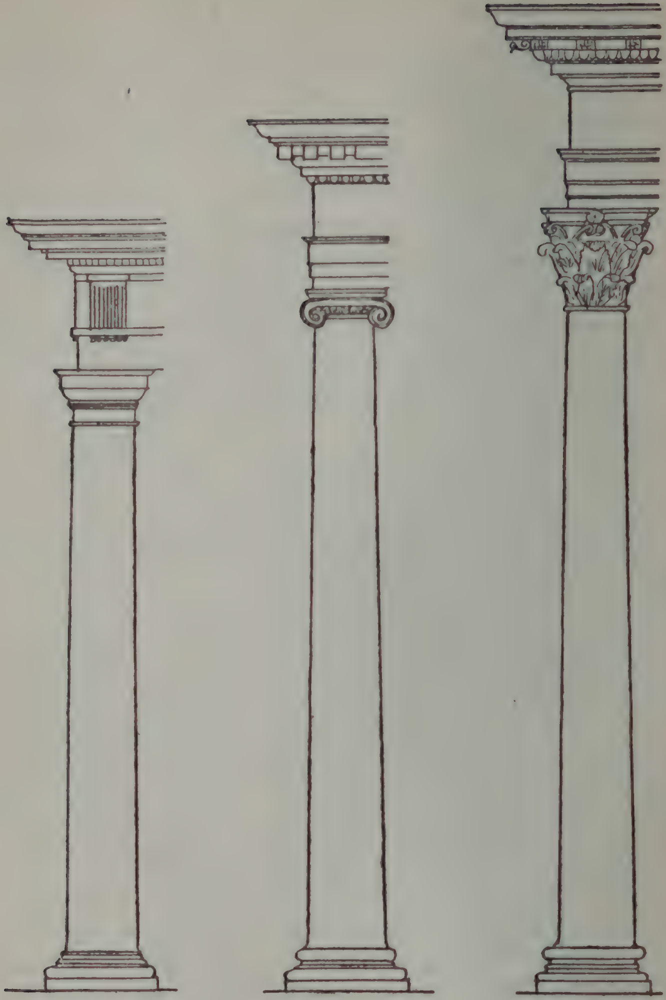
The older writers were generally of the opinion that Roman architecture was evolved without much reference to Greece, and was derived mainly from the Etruscans. Now we do not know much of this people, who seem to have settled in Italy in prehistoric times. They were certainly great builders, but the older theory of their being originators is now discredited, and it seems pretty clear that they only adapted the forms of Greece which in turn were taken by the Romans.

GREEK COLONIES

In addition and far more important as regards influence on Rome, were the numerous Greek colonies, at Syracuse in Sicily, and especially at Pæstum near Naples. The last had magnificent Greek temples equal, if not superior, to anything that existed in Greece itself. Further, there was the direct influence of master craftsmen and masons.

It is not easy to know how much Rome originally contributed to her own architecture, but that she showed a genius for adaptation, modification and development of Hellenistic art there can be no shadow of doubt.

The Roman architecture, contrary to the theories of some years ago, commenced as a trabeated style into which the arch, vault and dome were incorporated. It had been the custom until recent years to regard the arch as an original Roman feature, and to think that Greek orders were introduced at a later date, and imposed without constructural reasons on the native forms. This, as stated above, is quite untrue, although we do not know with certainty whence, and at what date, the arch came. Probably it came directly from the Etruscans, who used it freely in their building and who in their turn had got it from the Assyrians, who had no stone and built in brick, hence the development of the arch was essential to them. It came certainly at a time when a trabeated style, based on that of Greece, was



DORIC. IONIC. CORINTHIAN.

ROMAN ORDERS.

well established. We must not discuss this further. In this short introduction it is necessary that we should deal more with the developed forms, rather than probe too deeply into the influence which affected those from outside sources. We are dealing with ancient styles which affected our own architecture, and must not approach the subject from too archæological a point of view.

THE ARCH AND THE BEAM

The marriage of the arch and the beam is the main fact of developed Roman architecture, and a great turning point is reached here. This is most important, as this system was the forerunner of the Romanesque, and, in the end, of the Gothic styles.

Up to this we have been considering architecture which consisted of one story only. Now we get a difference. The Roman plan consisted often of several stories and the orders are superimposed. The constructural purpose of the columns has largely given place to a decorative purpose, although not entirely.

The temples follow the general Greek plan, but the refinement of detail and proportion is less noticeable. The Romans expressed pride and power in their building – while lacking the refinement of the best Greek period, they show a certain arrogance not found in the former.

BRICKS

Sun-dried bricks had been the ordinary building material from an early date. Burnt bricks were not made till later – probably in the second century. Stone also had always been used both in dressed and rubble work. At the fully developed stage of building, stone was used only in the monuments, temples, theatres, etc. Most of the civic and nearly all the important domestic buildings were of brick, covered with plaster.

PLASTER

The plaster was usually finished off in channels suggesting a stone construction. That the vast Thermæ at Rome (the Bath of Caracalla) was so treated there can now be no doubt, although most of the earlier authorities say that the brickwork still remaining formed the original finish. The legitimacy of such a treatment from the point of view of art will be considered when the later phase of English Renaissance is dealt with. It is a principle in which the theory of art is concerned more than the practice of architecture.

CONCRETE

The Romans, we believe, were the originators of concrete. They, apparently, used two systems in this method of construction. In the first the aggregate, the broken stone or gravel forming the main ingredient of concrete, was mixed with the cement and poured into place in a semi-liquid state between timber moulds, or shutters, as we now call them. In the second the outer skins of the walls were built in thin stone or brick, and the aggregate poured in. Many ingenious devices of using tapered or wedged stones were adopted to form a key, and make the whole mass cohesive. Vaults and domes were usually of rubble masonry built on timber centring (as is done to-day). This rubble is fine and is, in reality, a concrete. Numerous modifications occur, such as the use of pottery vases, wine jars, and drain pipes in the vaulting. These objects, being round, were capable of resisting the pressure of the setting concrete, and at the same time obviously lightened the whole mass.

The dome, owing to its method of construction in Roman work, shows very little externally and was essentially an internal feature. It probably originated in a simple mud form in farm offices, and was developed as a convenient method of covering large circular spaces.

VAULTS

The Romans used the vault and dome most freely, and, by placing two vaults in such a way as to intersect, the groined vault was invented by them. Timber construction also made vast strides, and it is generally agreed that the roof truss was a Roman invention. This made the roofing of large spaces possible.

PLANS

The plans got extraordinarily complicated. Every form of geometrical figure was worked in and axially co-ordinated. They showed a genius for planning, not only buildings, but streets, which was far ahead of anything that had been achieved before.

The orders as used by the Romans were based on the Greek and elaborated. In addition to this they used a variation of the Doric called the Tuscan, not used by the Greeks. They also used a composite order composed by mixing the Ionic and Corinthian capitals of the column; but in other respects the arrangement was as in the Corinthian.

The Romans built many important aqueducts and bridges. These must be, however, classified as engineering works rather than as architecture.

There are, of course, numerous Roman remains scattered over Europe, some in perfect preservation, notably at Nîmes and Arles in France, and Segovia in Spain. England is rich in these, and while they are here invariably fragmentary and ruinous, yet they are in many cases sufficiently preserved to allow of restoration on paper.

BYZANTINE AND ROMANESQUE

When Constantine removed the capital of the Empire from Rome to Constantinople in A.D. 323, he naturally brought the Roman architecture with him. Byzantine was a Greek colony, and as such had an architecture developed from the mother country. The change from the purely Roman form to that which we call Byzantine was not rapid, but by the time that Santa Sophia was erected, A.D. 532–7, what one must think of as an entirely new style had developed.

DOMES

The main feature is the great importance given to the dome, while the decoration has become enormously more elaborate than in any previous building, and, as is to be expected, Oriental, mainly Syrian, in character. Complicated as Santa Sophia and other churches of its period may look, the plan is wonderfully simple, and almost childish compared to the more elaborate buildings of Rome.

A later Byzantine building, St. Mark's, in Venice, built in 1063–71, is as equally simple on plan as those of the parent style. Venice was at this time a connecting link between East and West, which is, of course, plainly shown in her architecture. Ravenna at an earlier date was even more individual and interesting – more especially as an inspiration for Western architecture.

SANTA SOPHIA.

MOSAIC

The Byzantine designs developed the use of mosaic to a point far beyond that attained in Western civilization. Definite constructional lines were replaced by bands of decorations. Colour was used with amazing artistry and skill. Carving followed Greek lines rather than Roman. It was in low relief and incised on a flat surface and had none of the quality of application that is characteristic of Roman work.

Certain details, as, for instance, the acanthus leaf, were taken direct from Rome, but rapidly became conventionalized, be it said in a highly satisfactory and pleasant way.

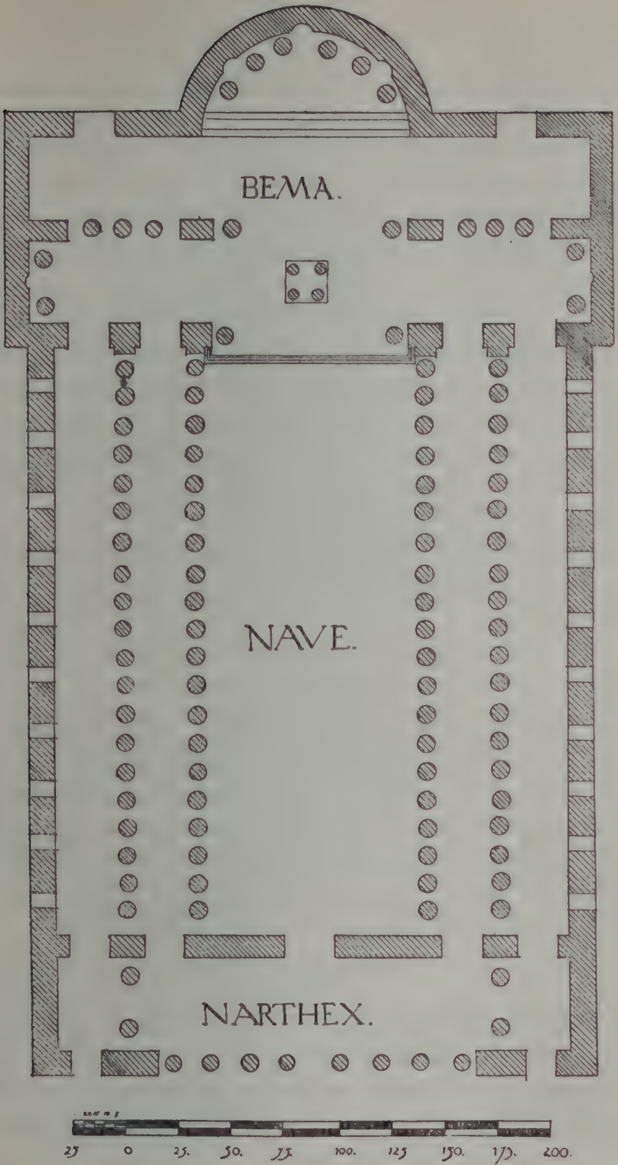
EARLY CHRISTIAN

While Constantinople was in course of developing, and was engaged in the practice of its own style, another movement was taking place in Italy, those experimental efforts which led to the finished Romanesque. This is known as the Early Christian or Early Romanesque.

BASILICAS

When Rome was Christianized there had been a remarkable adaptation of pagan buildings to Christian uses. The Basilicas (Halls of Justice) were singularly adapted to the early forms of Christian worship, and the inspiration for the earliest churches had its origin here. Some authorities suggest that the Early Christian Church grew out of the Roman dwelling-house and other sources. There is little doubt in the writer's mind, however, that the theory of a Basilica origin is the more convincing.

The main features in the adaptation seem to have been these. The apse became the chancel and this semicircular form remained for a long time in Northern Europe. The altar underwent practically no change of position. A choir was formed by low screen walls



BASILICA CHURCH OF ST. PAUL, ROME.

carried into the nave. These were termed cancelli, the origin of our word chancel.

A transept was sometimes, though not always, built on, and converted the plan into a cross. It has been suggested, however, that the cruciform ground plan was derived from earlier buildings built for sepulchral purposes. It is by no means clear that the cruciform ground plan in general use later is symbolic, or whether it was developed as a matter of convenience. The Basilican church was approached through a forecourt in which stood a well or fountain, used by pilgrims, in which to wash before entering the sacred building. A custom which, in an altered form, survives in Roman Catholic churches to the present day.

Part of this forecourt was covered, and this may have been – in all probability was – the origin of the later cloisters.

BAPTISTERIES

The baptistery also was important. These were used originally, as the name implies, for the baptismal ceremony only. They were derived from the circular Roman temples, and at first were separate buildings. Later, the font came to be placed in the entrance of the church and the erection of baptisteries ceased.

CHARLEMAGNE

In 799, the Roman Empire in the West practically ceased to exist. Charlemagne, the first Frankish king, was elected in this year, and was an instrument in the spreading of the arts, and revival of civilization, including a great activity in building in Western Europe. Till his reign little building had been done for two centuries, owing to the frequent foreign invasions.

By about the year A.D. 1000 the main states of Europe were in existence, and Romanesque buildings were rapidly rising everywhere. They were widely divergent in different countries, as is to be expected. East and West had entirely separated in style by now; but at the same time there was much intercourse in trade between Constantinople and Western Europe, and in ecclesiastical matters also; consequently there was a strong Byzantine architectural element constantly travelling westward, more especially in the arts of decoration.

DEFINITION OF ROMANESQUE

The term Romanesque is often rather loosely used and has come to have two distinct meanings. Most authorities use it to define all those phases of style, based on that of Rome, and practised in a haphazard way in Western Europe, between the time of Charlemagne and the beginning of the Gothic period. That is to say, from about A.D. 800 to the middle of the twelfth century, a period of about 350 years.

Alternatively it is used in such a way as to include all work done under Roman influence in the West, subsequent to the departure of Constantine from Rome in A.D. 323, to the beginning of the Gothic period. There are advantages in both systems of classification, and it must be admitted that there does seem to be a turning-point after Charlemagne's time. There are very many difficulties, and there is a great deal that is still obscure and that has not been worked out. It must be remembered that the growth, or transition, from Roman work to late Romanesque was a gradual process, and many features which used to be attributed to Eastern sources are now traceable to Roman inspiration.

On the whole, the writer considers the latter classifications by far the most satisfactory; and the term Romanesque, as used in this book, covers the period from Constantine to Gothic in the west of Europe.

As a rule, when we find any striking development of art, either in historical or prehistorical times, we are able to explain it. The civilization of Egypt finds its explanation in its geographical position, and in the Nile with its rich valley and delta. That of Mesopotamia can be traced to the Tigris and Euphrates which performed for that land what the Nile did for Egypt.

Crete and Cyprus and the Ægean Sea stood in the track of the Eastern and Western currents of trade, and Greek art followed. All these places were desirable for climatic reasons. Rome, and for a time Carthage, with their command of lands in the Western Mediterranean, were in the natural position to found great civilizations, and consequently to develop a high standard of architecture.

Later, when the Atlantic became of more and more importance, Spain and Portugal, and subsequently Holland, became in their turn the most important countries in the Western-moving process of development.

England, finally, commanding the commercial centres and trade routes, and because of fortunate geological formations, became the principal pioneer, and developed into the first great maritime empire.

We must realize the importance of these social conditions before we can understand the history of our own architecture.

Its base rests on these facts.

All these forces, which had been operating for thousands of years, effected and were the inspiration of our native styles of building.

CHAPTER TWO

Pre-Christian Architecture in England

THE earliest structures which have been found in this country can be divided into three classes: Menhirs, or single stones set upright in the ground; Dolmens, in which a stone slab rests on two or three more uprights; and Cromlechs, circles or groups of upright stones generally enclosing barrows or dolmens. Hundreds of these erections are scattered throughout the country. With the first two classes we are not much concerned here, but they deserve some general consideration, as they are the immediate ancestors of definite architectural achievement.

The pillar stones, or single uprights, are found throughout the whole area of the British Isles, and are known by various local names, and have many different sources of origin attributed to them. They are invariably rough monoliths, and are obviously the work of a primitive people.

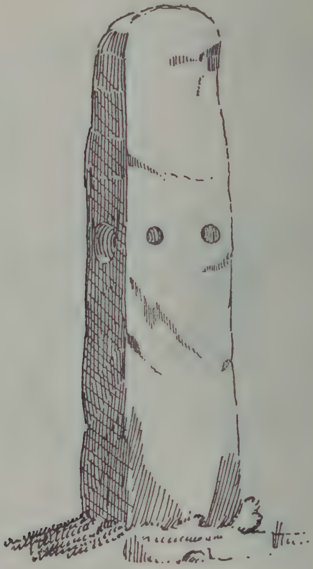
In England they are often called hoar-stones, of which the Scottish equivalent is hare-stane; in Wales they go by the name of maen-gwyr, while in Ireland they are usually known as gallauns.

There are a great many suggestions as to their origin. Among these are theories as to their being landmarks, Idol Stones and monumental records of battles, or some important individual or event. In some parts of Scotland they are known as 'Cat-stones,' and, as the word Cath in Gaelic means battle, this particular local nomenclature is rather suggestive.

At a very old ford on the River Erne, in Ireland, are two well-known examples to which other stones seem to lead the way which rather indicates the landmark theory. Writers on the life of St. Patrick referred to the fact that he found the people worshipping idols in the form of stone pillars. It is recorded that the saint caused these stones to be overthrown, while upon one intentionally left standing he inscribed the name Jesus. He used the material to hand to glorify the faith he preached – an old practice – and several of these monuments may be observed to-day to bear on their surface a rough cross, rudely punched. It is probable that the

DOLMEN, CORNWALL.

main inspiration was for purpose of monumental record, but they were put to other uses also. It is at present a question of probability – we cannot be certain. A further variety of these monoliths exist in Ireland, Scotland and France and elsewhere, which are known as 'Holed Stones.' These are similar to the pillar stones, but have holes bored through them. They are associated with the curing of disease, and with certain forms of oaths; but the whole question of their origin and purpose is too complex to discuss here. The most



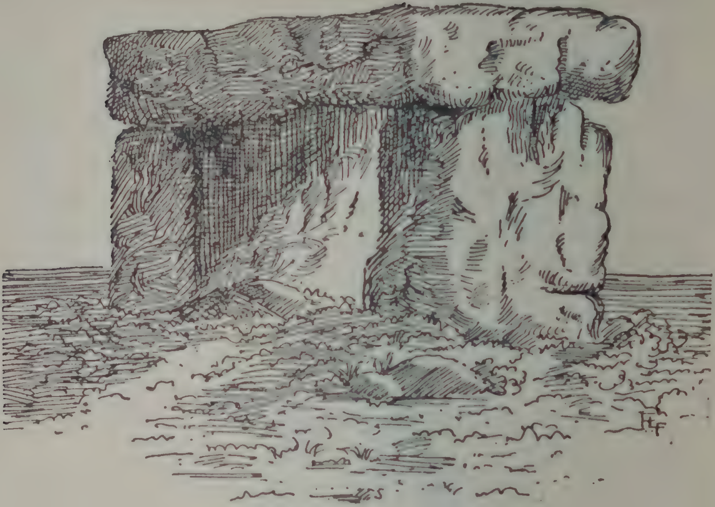
A HOLED STONE, IRELAND.

famous of these holed stones is one near Kirkwall, in Orkney.

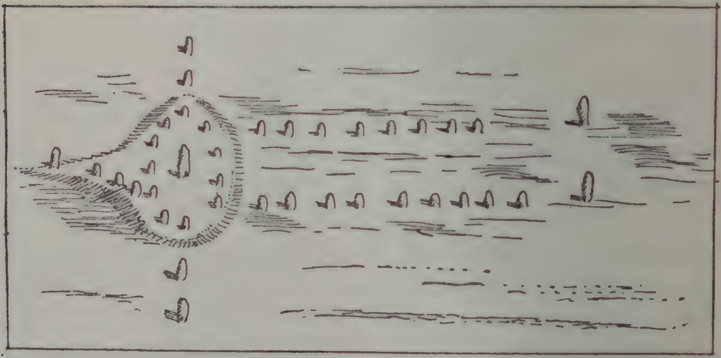
The dolmen is nearly certainly a monument marking a grave of some important person, whose body, or cremated remains, were buried beneath it. It has been clearly shown that both systems of burial were simultaneously in practice during the Stone and early Bronze Ages. The dolmens are fairly common in England, Wales and Ireland, but are very rarely found in Scotland.

A DOLMEN OR CROMLECH.

The circles occur very seldom, and the largest of these, Avebury, is so ruined that it is not of great interest. Stonehenge is by far the best known, and its workmanship is so superior to other groups, such as Avebury, or Carnac in Brittany, that it suggests the probability of a later date. In addition to this, Stonehenge is much more elaborate as to plan. It has been described as the climax of Megalithic monuments. Different from all the other circles, it must be considered definitely as a work of architecture, and as such



DOLMEN, ROCHESTER.



STONE CIRCLE, ISLAND OF LEWIS.

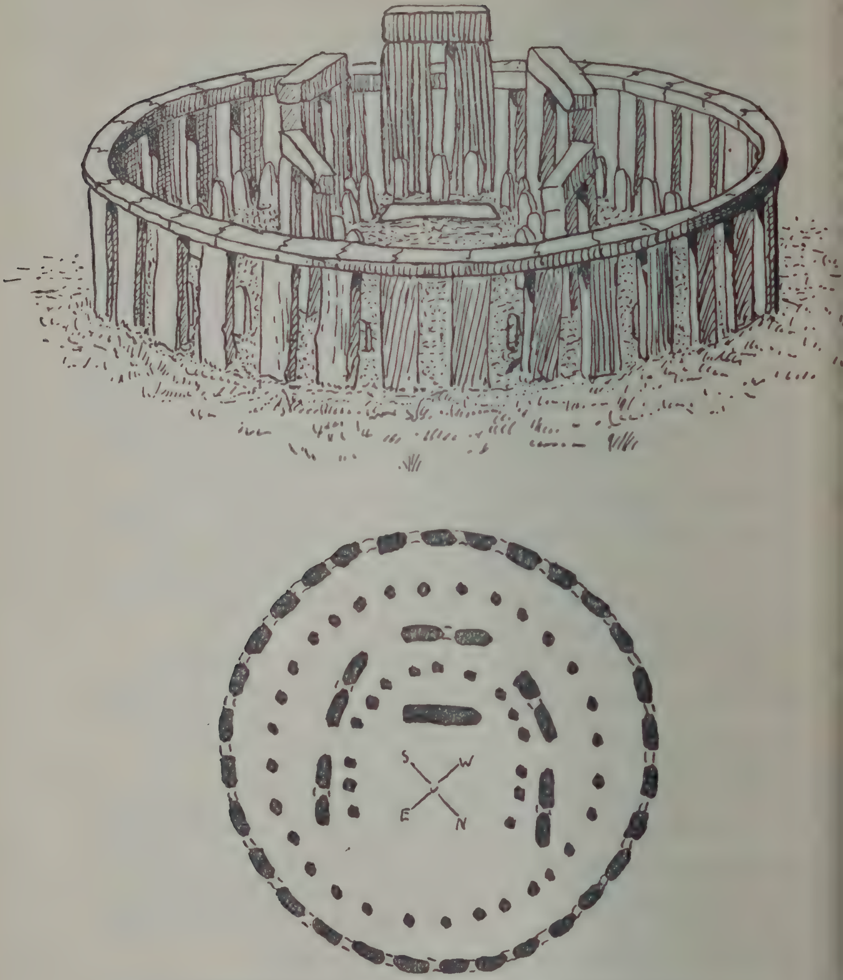
the earliest in these Islands. The building of Stonehenge, until recent times, has always been associated with the Druids, but this idea is now entirely discredited.

The date of Stonehenge is nearly certainly round about 1700 B.C., which is long before the date of Druidism as suggested by any existing record. Indeed, although a vast amount has been written on the subject, we know practically nothing of the Druids. Druids may have used Stonehenge, and thus this association with their form of worship came about. This is pure speculation. Stonehenge is the culmination of a great trail of those (Celtic?) stone circles which stretch across Europe and, apparently, started in India; although we do not indeed know where the Celts originated or at what date they can be regarded as being a distinct group of the Aryan people. The whole subject is still very obscure. It was no doubt a temple, probably connected with a form of sun-worship, but we can only guess at what shape or form the religion took.

The evidence revealed by the most careful excavation has placed it beyond doubt as being in the early Bronze Age. This is convincingly summarized in *Stonehenge To-day and Yesterday* (Stevens).

The builders were nearly certainly Celts according to the evidence available, but this again is denied by many distinguished archæologists, who regard it as earlier than any Celtic immigration; perhaps it does not matter very much. Celtic or pre-Celtic, it remains the first work of architecture in the British Isles.

Before we discuss the plan of Stonehenge it is necessary to consider the class of stone that is found in the



STONEHENGE: PERSPECTIVE VIEW AND PLAN.

temple. This has been divided into various groups by geologists, but in fact they can be regarded as only two.

They are composed of what are known as 'Sarsen' stones and Foreign stones.

The former, which form the outer and third circle (or horseshoe), are composed of local stone, as is also the central altar. The stones are a local sandstone which originally covered the whole chalk stratum of Salisbury Plain, and is still to be found in large detached boulders scattered here and there over the district. The name Sarsen is a corruption of Saracen, which in the Middle Ages stood for all that was antagonistic to Christianity. Consequently the stones were Saracen or heathen, which the dialect of Wiltshire has preserved as Sarsen. The term Foreign stones was first applied by Mr. Stevens to distinguish the imported from the local stones. The Sarsen stones attract most attention by reason of their huge size; but the Foreign stones presented a problem which, until quite recently, entirely baffled the geologists. No such stone is found anywhere near the district, and various places, including Cornwall, Kildare and Scotland, have been suggested as their sources of origin. All doubt on this question has now been set at rest by Dr. Thomas, of H.M. Geological Survey, who has located the stone as belonging to a limited area in the Prescelly range in Pembrokeshire. Dr. Thomas states also that the Altar stone was brought from near Milford Haven, thus suggesting a further connection with South Wales. It is a significant fact that no less than eight stone circles exist in the area from which these stones were brought. Mr. Stevens has made the highly interesting suggestion that a certain sanctity was attached to this particular rock, which led to its transportation over a great distance.

Further to this, new light has been thrown on the route by which these stones were brought to their present position. Mr. O. G. S. Crawford, of H.M. Ordnance Survey, while examining photographs of Stonehenge taken from the air, detected lines which appeared to indicate a trackway from Stonehenge to West Amesbury. Excavation proved this to be the case, and it is interesting to note that this track follows the easiest gradient from the river to the site. Further discoveries of certain very ancient excavation have also recently been made, which suggest the possibility of a partial rearrangement of some of the stones from an older to the existing plan, but up to the present this must be only regarded as a possibility.

The Foreign stones, then, were brought as far as possible by water, and a certain stone in the Avon near Bulford is said by tradition to be one of those that was upset in transit and left where it sank in the river. The writer in no way vouches for the truth of this legend. But the fact remains that such a stone does lie in the river to the present day.

The plan of the actual circle is as follows: A ring of Sarsen stones, consisting of thirty uprights with lintels mortised to them, forming trilithons, makes the main outside circle with a diameter of about 108 feet. The accurate fitting of these stones and their fine finish is remarkable. Within this ring is another consisting of single upright Foreign stones numbering originally between thirty and forty. These are not nearly as well hewn as the outer ones. Inside them again is a horseshoe composed of five huge trilithons which increase in height towards that at the south-west point. These are Sarsen stones; beside these trilithons is a horseshoe of Foreign stones which originally numbered about fifteen or sixteen. At the enclosed end of the horseshoe lies a single slab known as the 'Altar Stone.' The whole erection stood in the centre of a circular earthwork about 300 feet in diameter, and is approached by a wide avenue, bounded on each side by earthworks on the north-east.

In addition there are certain other isolated stones which, although of great importance to the archæologists as suggesting certain facts in regard to the uses of the temple, are of no architectural value.

The original height of the largest trilithon was about 21 feet over the ground-line.

The excavations have proved almost conclusively that the stones were all dressed with stone instruments, and the excavation for their foundations carried out with stag's-horn picks. The most interesting and remarkable thing to note in the dressing of the stones is the skill shown in the jointing of the uprights and lintels. In the outer circles each upright had two tenons which correspond to the mortises on the surface of the lintels. Further, the lintels were 'toggle' joined to each other. Although the stones are now greatly weathered there is evidence that they were originally finished with a smooth tooled surface. The amount of labour involved was prodigious, and is appalling to contemplate.

One of the theories accounting for the bringing of the Foreign stones was that they had originally formed a smaller temple elsewhere and that some migrating tribe had brought them with them already hewn and dressed. The excavations have entirely disproved this, as large quantities of chippings from both the Foreign stones and Sarsens were found at their bases so intermingled as to preclude all possibility of a difference in the date of erection. The whole of the temple was certainly erected at one time.

One rather interesting note on Stonehenge occurs during the period of the Renaissance. It is duly reported that James I instructed Inigo Jones to survey and describe it. Inigo Jones, in a long and detailed report, states that it was 'a Roman Temple dedicated to the god Cœlus.' So much for the accuracy of research of the day. It throws a sidelight on to the knowledge of the architects of the Renaissance on their own subject of Classic Architecture.

ROMAN REMAINS

It is true that a great deal of Roman work exists throughout the country consisting mainly of the foundations of villas, baths, forts, and of course the great wall built in A.D. 210. That last, however, is not of architectural interest, and the former are so ruinous as to preclude their inclusion in such a history. Moreover, far more perfect remains of Roman work of this period exist elsewhere. With the exception of these fragmentary Roman remains, we have little else in Britain belonging to the pre-Christian period that can be called architecture.

It is to be remembered that Christianity is supposed to have been introduced into Britain about the end of the first century, but it was not until the beginning of the fourth century that it became the formal religion of the Romans, and after their departure it lapsed until revived by St. Augustine and others at the end of the sixth century.

For the purpose of this book the term pre-Christian is used in relation to that period in Britain before the acceptance of Christianity by the Romans, or soon after the year A.D. 300. The writer wishes to make this clear, as the term pre-Christian is used with many different meanings in architectural literature.

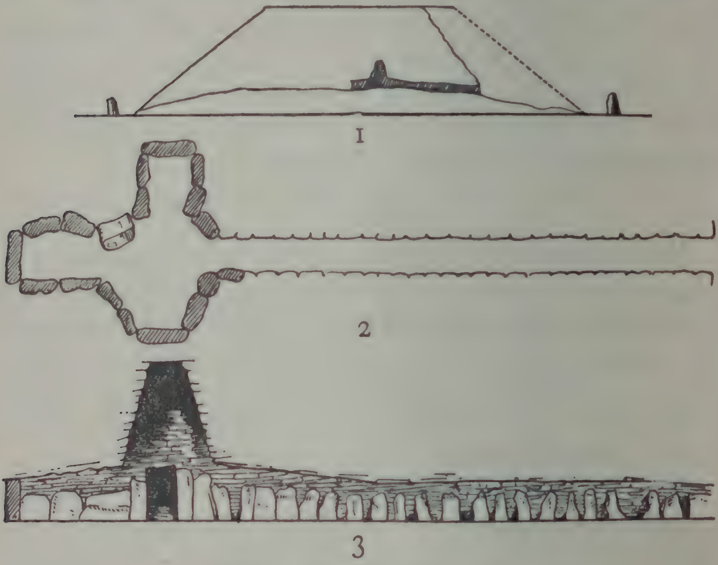
IRELAND

In Ireland it is even more difficult to assign a terminating date to what we call pre-Christian period. We know very little, practically nothing, of Christianity in that country prior to the mission of St. Patrick in the year 432. Most authorities are of opinion that it was confined to small monastic establishments in the south-east part of the country.

It is impossible to fix any date, and this chapter deals only with buildings which are certainly native and not affected by any possible Early Christian influence.

These stone structures which have been referred to previously as dolmens are usually called cromlechs in Ireland, and have the same Druidical association. Their general character is as rude as those elsewhere, and they cannot be regarded as architecture. Their main interest lies in the extraordinary numbers that remain – nearly 900 are recorded in all. This may be due to the fact that the Irish peasant as a rule has great respect for the ancient monuments of his race, and while large numbers of them have in England probably been broken up for walling and road-making purposes, in Ireland they have been respected and preserved.

The earliest monument of definite architectural interest is undoubtedly the tumulus at New Grange, near Drogheda. The general arrangement of the work is a hill of carefully packed stone covered with a layer of earth. The base is formed by a retaining wall of large blocks of stone upon which a dry wall 5 to 6 feet high is built. A circle of large detached stones set upright surrounds the mound. The total height from the floor of the inner chamber is over 40 feet, and the area covered by the earthwork is approximately an acre. The total



NEW GRANGE, IRELAND.
1. The tumulus as a whole. 2 & 3. Plan and section of interior.

area inside the stone circle is about two acres. The mound contains a central chamber, roughly cruciform in shape, with a passage leading into it. This passage is over 60 feet in length and about 4 feet 9 inches high, and 3 feet 2 inches wide at the top with slightly battered walls formed of large upright stones, and is roofed with stone lintels.

The central chamber is built with horizontally laid stones, each course projecting beyond the one below, until they are topped by a single flag.

The greatest height of this chamber is 19 feet 8 inches, and it measures in extreme length and width 26 feet by 21 feet. So far the construction does not materially differ from that of some of the English barrows, but the great interest lies in the fact that many of the stones in the interior are most richly carved and decorated. Spirals, lozenge and zigzag patterns exist in profusion. The suggestion has been made that this carving may have been executed long after the original structure had been erected. This theory will not hold water for a moment, as in the majority of the stones the carving must have been done before they were built in. It would have been absolutely impossible to have carved many of these stones in their present positions.

Authorities are by no means in agreement as to forms of burial that took place in this great sepulchre, and it is unlikely that the question will ever be settled. Owing to the fact that there does not appear to have been any way of blocking up the entrance, and that this entrance is rather emphasized, there are strong grounds for believing that the main central chamber may have had its use as a temple, and the recesses, only, used as graves.

The greatest caution must be used in approaching the question of the dates of this and the other Irish tumuli. It is out of the question to discuss this here in even the most brief way. Most experts, however, are in agreement that it belongs to the Early Bronze Age.

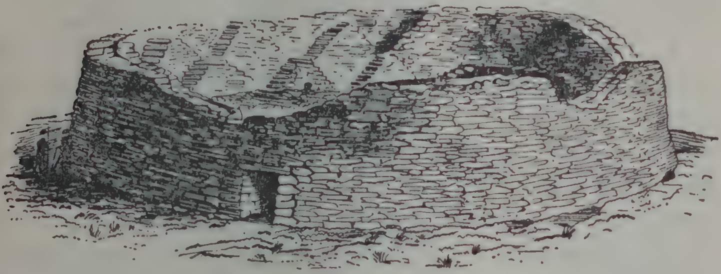
FORTS

The stone forts and 'beehive' huts are exceedingly interesting types of simple masonry, and the leading authorities are agreed that the earlier examples of forts are pre-Christian. Some of these, which are found in great profusion, are certainly of very early date. This erection covered a long period, and although in all probability the type was evolved in the Bronze Age, they were used as late as the Middle Ages. They seem to be an evolution from the prehistoric earth fortifications, and were most common, as is natural, in the districts where stone is easily procurable. They are known as 'Cashels,' which is not the true Gaelic spelling, but sufficiently near for the present purpose, and the one that has been generally adopted in the past. These forts show much skill in design and construction, and can certainly be classified as architecture.

Staigue Fort, in Kerry, is one of the best examples, and deserves some special notice. This building is circular on plan and measures just over 100 feet in diameter. It is built of slate, and the small spaces between the large stones are filled with fragments of the same material.

The wall varies in height between 10 and 18 feet, and is battered from about 13 feet at the base to about 7 feet at the top. The doorway is about 6 feet by 4 feet and is also battered. The main wall is built in a series of platforms, to which access is gained by several sets of steps. The masonry, while rough, is exceedingly well fitted together, and shows experience and skill in its handling.

About four hundred of such forts exist in County Clare alone. Some are more elaborate than Staigue; and all sorts of varieties occur in plan and sections. Sometimes they are defended by outer works of various sorts, and some of them contain small stone dwellings, which are dealt with separately in this chapter.



STAIGUE FORT.

It has been the custom for many years to attribute the period of these forts to the first century of the Christian era. Recent research has quite discredited this view, and they are now held to be much earlier.

They were not intended to stand prolonged sieges – the absence of internal water supply proves this – but were temporary refuges for people and cattle in an age when wide movement in search of pasture existed. They were primarily places in which to retreat in case of sudden attack – to make the normal life more secure.

The large number of their forts and their late occupation shows how unsettled a state the country was in over long periods of time. They were far more numerous here than in other parts of the British Isles.

Forts of a similar type existed in England and Scotland; also in districts where stone was easily procurable. Remains of these have been found in various places, but there are no complete examples in England as are so freely found in Ireland, neither do any internal buildings survive in those that have been examined.

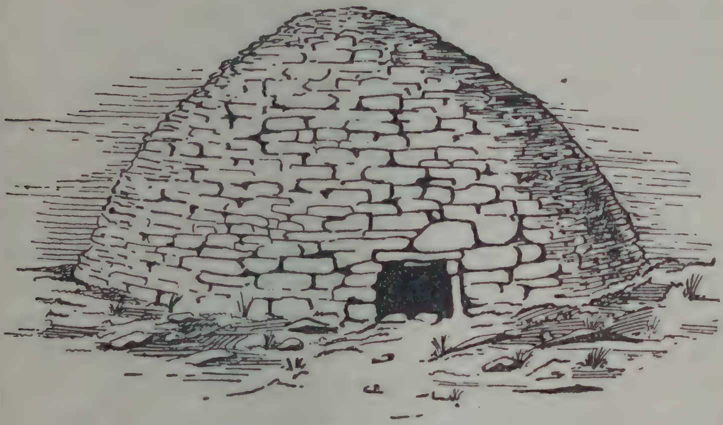
The British defences that gave Cæsar's Legions such trouble seem to have been made of tree-trunks with the spaces between them filled with stones and earth. It is probable that the Roman occupation, with its superior skill in fortification, rendered the earlier stone forts useless, and they were given up. The material may have been used in later buildings or in road-making. This is, of course, only conjecture, but we have no evidence from which to arrive at any definite theory as to their numbers or failure to survive.

SCOTTISH FORTS

Special mention must be made of a peculiar group of forts in Scotland known as the Vitrified Forts. These lie in a bend between Argyle and Wigtown and the Moray Firth. They are built of igneous rock which was subjected to heat and caused fusion of the stones into one solid mass. Although examples have been found on the Continent, they must be regarded as a special Scottish development; they are assigned to the late Celtic period.

BEEHIVE HUTS

Many of the Irish forts contain small stone buildings known as beehive huts. These are circular or oval, on plan, and built with each course overhanging the one below internally, until the walls converge and are topped by a single stone, in the manner of the central chambers of the tumuli. It is not now disputed that the form of these huts is of pre-Christian times, but, on account of the fact that they were taken as models for the early monastic cells and oratories, there was for a long time considerable confusion and difference of opinion as to what period they belonged to. Mr. P. J. Lynch, probably the leading authority of the present day on the subject, has expressed his opinion to the writer that we cannot point to any existing hut that is



BEEHIVE HUTS, CO. KERRY.

certainly pre-Christian. This must be admitted, and the writer bows to superior knowledge. Whether pre-Christian origin will ever be proved in the case of a hut remaining is conjecture – such a proof is most unlikely. The type, however, is certainly much older, and possibly was being built in the Early Bronze Age. These huts were limited in size by their method of construction, but in some cases two or three are joined together by short passages and extra room thus obtained. Some of them contain *souterrains* with an entrance from the floor.

In certain districts they are very numerous. At Glen Fahan, near Dingle, in a very small area there are six forts containing eighteen huts: a triple hut and twenty-three others detached.

As Mr. John Cook points out in his *Handbook of Irish Antiquities*, the Dingle Peninsula has no equal in the British Isles for variety and profusion of prehistoric and Early Christian remains. It is a wonderful area. These circular and conical huts are nearly certainly a local school, showing what was the universal plan of the simple dwelling during the Bronze Age in these islands. Generally they must have been of wood and plastered with clay, or thatched; and the Irish form that survives is due to the fact that stone is the obvious material in the localities where they occur, as stone is found on the surface, and in such a form that practically no working was required to render it suitable for primitive building. Moreover, there was practically no timber in those districts.

They are a typical example of a case, as is referred to in the introductory chapter, of material dictating a style.

CHAPTER THREE

Romanesque

CHRISTIAN. PRE-NORMAN

ROMAN

THE earliest remains of this period are Roman; but as these offer slight architectural interest and are inferior to other specimens of their own style elsewhere, they can hardly be regarded as coming within the scope of a book of this nature, except in so far as they influence the later styles. We cannot, however, deal with the subject in quite a casual manner, and it is necessary to give some attention to the general activities of the Roman occupation. It is, of course, usually impossible to fix the date of most Roman remains, and they can be placed in either the late pre-Christian or early Christian period. For the sake of convenience, and to avoid an almost impossible subdivision, the subject is dealt with in this chapter.

SOCIAL CONSIDERATIONS

The traditional view of the Roman occupation is that Roman and Briton remained separate in race and language throughout the occupation.

This view is probably wrong.

The Romans were not a pure race, but very mixed – Virgil was a Gaul; Trajan was a Spaniard; St. Augustine was an African. Such examples could be quoted in hundreds. The Celt at the time of the Conquest was by no means a barbarian; on the contrary, he had achieved a fairly high culture, both civil and military. He was, in the south at least, of the same tribes as in Gaul, from which he had only recently migrated. The Gauls adopted a Romanized life, and the assumption clearly is that the British Celts did also. The probability is that they became largely Romanized, in speech, habits and thought. They intermarried freely with the Romans; and large numbers of native Britons served in the Roman legions. It was not the departure of the Romans that destroyed Roman-British civilization – it did not fade and decay when they left – it was destroyed by fire and sword; by the ruthlessness of the Saxons and other invaders.

Hundreds of remains exist, principally in the south and east. Of the towns London and Canterbury were the most important. Many modern towns stand on the site of Roman cities, but there does not seem to be any case where a complete continuity of occupation certainly occurred. London, York, Carlisle, Chester, and a few more do seem to show such continuity, but this is a probability, not a certainty.

The Saxon destruction was pretty thorough. The Roman influence had, however, extended widely and deeply. It has been found that the native Celtic pottery, for example, disappeared in even the most remote villages, and is replaced by the bright red glazed pottery made in Gaul and generally referred to as 'Samian' pottery. This is found so far north as Scotland.

The influence is obvious everywhere. As far north in England as Shap Fells in Westmorland, far from any town, are the remains of a British village which is distinctly based on a Roman plan. There can be no doubt of this – the evidence is conclusive, possibly it may have been designed by some time-expired soldier who had learned something of planning while in the Roman legions, and wished to give his native village the benefit of his experience. The whole evidence of archæologists bears out the same general conclusion – there was no serious cleavage between Roman and Briton at the time of the departure – probably the harmony was well established before that date.

ROMAN LONDON

Ever since the Roman Conquest, London has been the greatest town in Britain. The heritage of modern dwellers in the Metropolis is an ancient one: it has never been challenged. London has always been supreme. It was an early settlement of Italian and Gaulish merchants in its Celtic days. It was one of the largest towns of the Roman Empire, covering during the occupation an area of somewhere between 300 and 400 acres filled with buildings of various descriptions. In the third century it was called Augusta, and it was in this period that its massive walls were built, whose line has been traced, and can still be traced by specialists, for its whole course.

It is impossible to say what was the general plan in a British-Roman city. The conditions vary so much that no common general features can be said to exist.

Silchester was perhaps 100 acres in extent, about one-third or one-quarter of the area of London. Its population, however, must have been only one-tenth or one-twentieth of London, because of its plan. The London houses were closely placed, while Silchester shows about one to the acre. Silchester was pre-

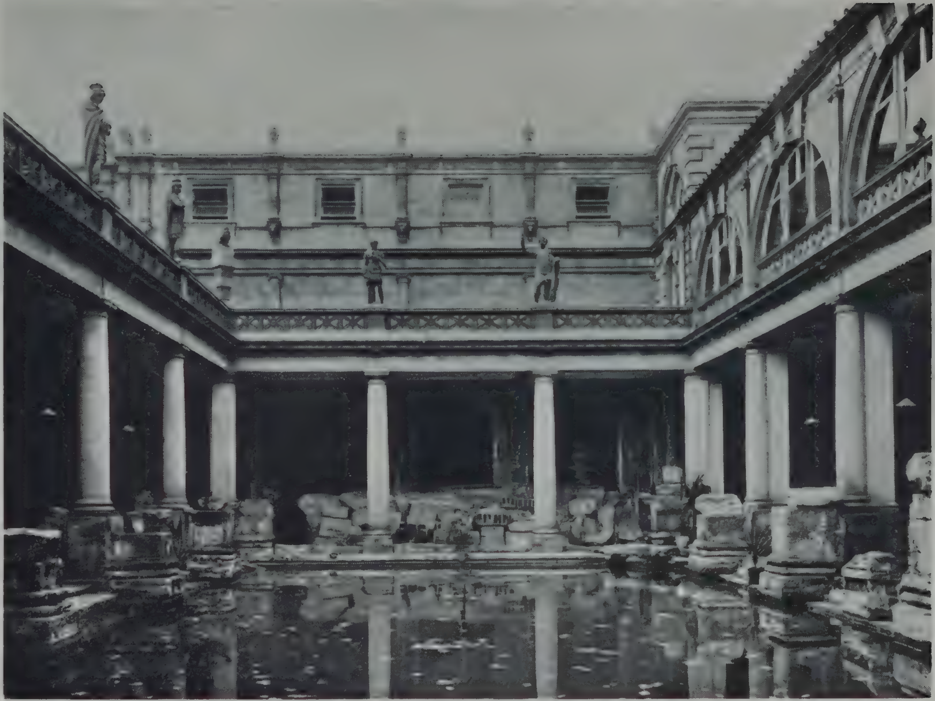
Roman, but was certainly Romanized in quality, and to some extent in plan. It struck its own coins: it had a developed commercial life. In short, it was a highly advanced Celtic town, modified by Roman influence.

That unimportant city, Cirencester, is a similar example. At one time it was second only to London in point of population, and covered about 250 acres in extent. It was as important as Cologne. It was highly developed in civic buildings during the Roman times and contained a great town hall and many important villas, and numerous sculptured and architectural fragments that have been discovered indicated a high social development.

Bath is the only place where such a civilization as existed can be seen to-day with its main features complete and clearly to be understood in one building or group of buildings. The original Roman baths here, for some reason, got covered with earth and debris and were not destroyed, and have been disinterred and rebuilt in a way that is certainly very close to the original construction. Questions of detail are controversial, but no doubt exists as to the arrangement and general lines of plan and elevations.

THE SAXONS

Let us consider, very briefly, the national character which helps to give us an understanding of the buildings of the time. The Saxons, when they landed in Britain, were a rude and vigorous people, with a healthy dread of Christianity and Roman civilization. They destroyed everything Roman they could. They drove the British before them into Wales, Cornwall and



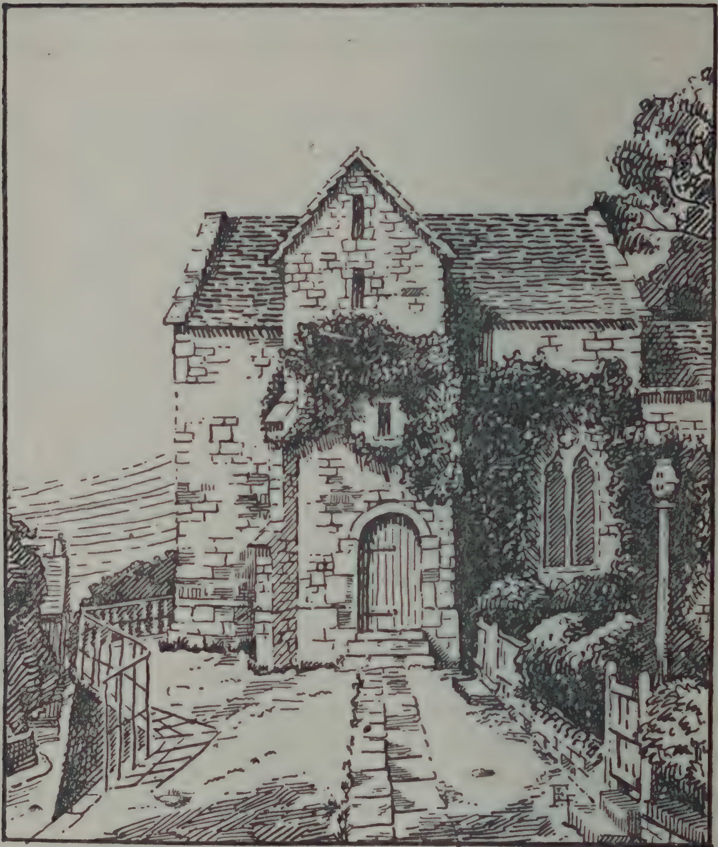
ROMAN BATHS, BATH.

Lancashire. For 200 years this process went on, and all this time Roman buildings were being demolished and were decaying; roads were falling into ruin; and the effects of the Roman civilization were disappearing in a most thorough fashion.

The Saxon was nearly a savage – a hard drinker and very dull of intellect. He was, in spite of this, a brave and patient fellow. He forgot his original sailor ways and became an ardent agriculturalist. He hated towns.

He was not a good subject to his kings and princes. He was always contesting his rights and questioning authority. Each village was fairly well self-contained, and, until his conversion to Christianity, in the early part of the seventh century, he learned little or anything from his neighbours. The English common originated in his time, on which he fed his stock; the pig was the most important meat. Mr. Rudyard Kipling's little history gives us as good a short survey of the Anglo-Saxon period as has yet been written, although some of it suggests more fancy than research. The system of government was in the hands of small, local kings – in the seventh century there were at least seven kingdoms. The buildings were generally of wood, and it is little wonder that such a people have left little in the way of architecture behind them. What they did leave, however, has just such qualities that one would expect to find – the remains are semi-developed and crude.

The period covered by the Saxon style is taken for convenience of definition as from the date of the departure of the Romans, early in the fifth century, to the Norman Conquest in 1066.



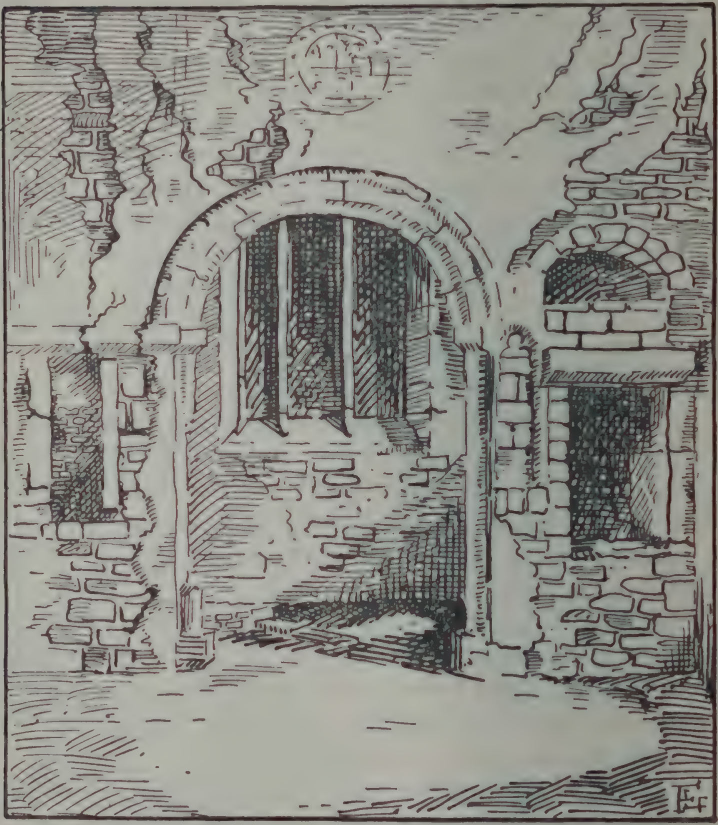
WAREHAM: A SAXON CHURCH BUILT *CIRC.* 700 A.D.

The Romans must have left many churches in the country, probably similar to the one whose foundations were excavated at Silchester in 1892. Some of the Saxon churches were built of Roman ruins, or were roughly copied from them and the memory and tradition that remained. These would have been of the Basilica type, and the plans were probably – indeed, almost certainly – very simple. After the Pope had sent Augustine on his mission to Britain in 597 there would have been a direct influence from both Italy and Constantinople. The influences on Saxon work, therefore, were at least threefold: the Basilica or early Christian tradition directly from Roman remains or indirectly from Italy; the Romanesque; and direct influence from the Byzantine style.

We can form little opinion as to the numbers of these Saxon churches. It must be remembered that the whole population of these islands was very small and, until the Norman Conquest, was in a constant state of war and invasion. Social conditions were entirely unfavourable to the development of building.

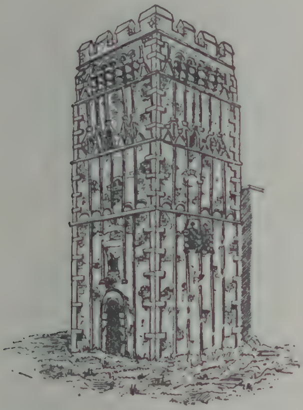
The usual plan of the Saxon church, so far as this has been agreed, appears to have been two rectangles placed end on, and joined by a chancel arch. The chancel was lower and smaller than the nave. The nave was very long in proportion to its width.

Several remains show apses, one at least, at Wing, being seven-sided: most of them are semicircular. There are examples of towers, some of which are interesting in design, those at Barnack and Earl's Barton being probably about the best that now remain. The masonry is of rubble with dressed stone at the angles in



THE CHANCEL ARCH, ST. MARTIN'S CHURCH, WAREHAM.

'long and short' courses, and the nature of the work is irregular and crude. The openings are usually round-headed, occasionally triangular. Rude balusters are found in some windows. One of the best surviving examples is Escomb Church, in Durham. It has an extraordinarily long nave and a small rectangular chancel with a round arch. The stones of the jambs and the doors are carried out in long and short work, but this treatment does not occur externally. It appears to have been built of stones taken from a Roman building. There have been some additions, but the structure is generally as originally built. The roof is of stone slates carried on rough timbers, and is much later. The church is still in occasional use.



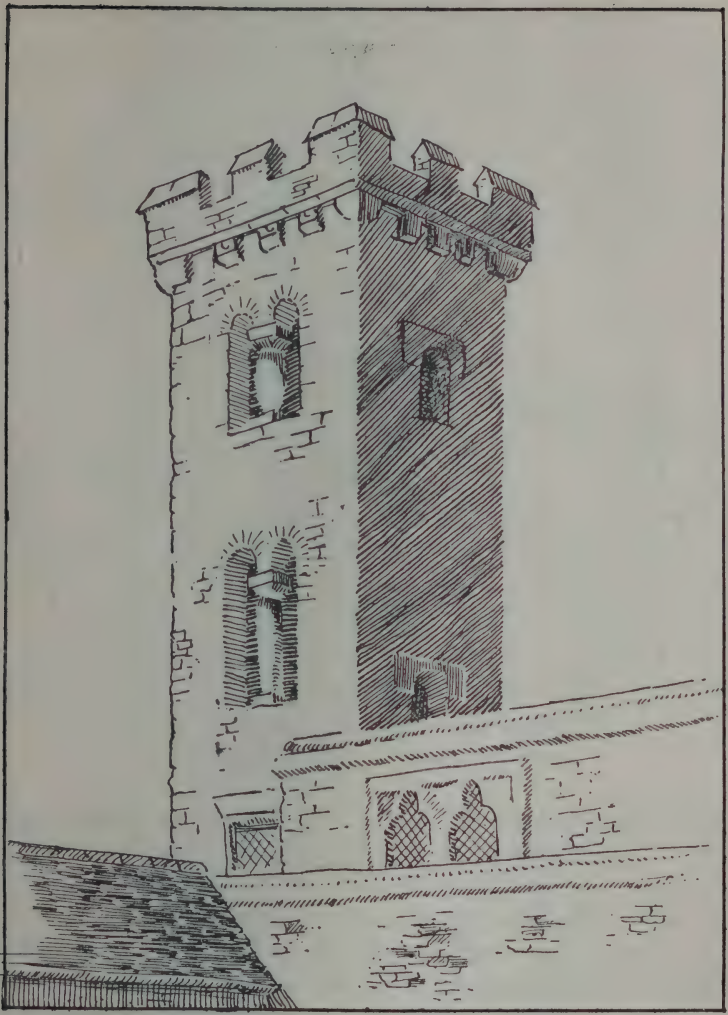
EARL'S BARTON TOWER.

No very early Saxon church remains. Most of the writers who have specialized on the subject agree that no stone church was built before the middle of the seventh century. The earlier buildings, both churches and domestic, were, it is almost certain, of wood, and none of these survive. Earl's Barton tower, mentioned above, seems to be an early stone building based on a wooden construction. Many authorities have given their opinion for and against this theory. It is impossible to discuss this here, and, unless he is prepared to study the facts in very considerable detail, the reader will be well advised to keep an open mind on this question.

We are at a loss to know the Saxon method of roofing. MS. references exist which suggest slate or shingles, and this seems likely enough. The truss may have been within the scope of the builders' knowledge (from Roman remains) or very heavy single rafters would have been employed.

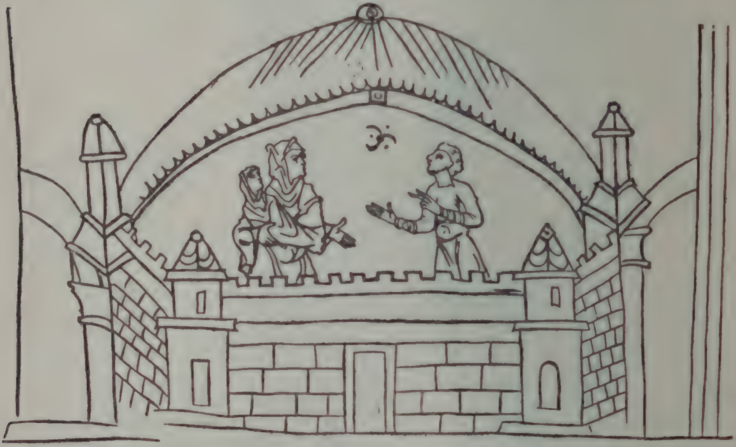
Certain churches departed from the double rectangular plan. It is believed that a church built at Hexham, by St. Wilfred, was planned as a circular tower with four arms. Some churches were rounded at the west end as well as at the east. Among these was the old cathedral at Canterbury. This has been the subject of much controversy into which it would be unprofitable to enter in a general architectural history.

The whole amount of Saxon building that has survived to-day consists of a few churches, crypts and portions of others, and foundations and similar remains. Buildings showing certain traces of Saxon work number in all probably less than 700. The style is noted for its general roughness and coarseness of detail; and at the same time it is not lacking in dignity and monumental quality.



TOWER – BARDSEY CHURCH, YORKS.

The Saxons certainly built forts, but we are almost entirely in the dark as to their form and size. It is probable that they were earthworks containing wooden buildings. Against this, however, we must recognize the fact that Saxon MSS. show many illustrations of battlemented walls with towers. From the drawings it is impossible to say if these buildings are Saxon or Roman: very possibly the latter. There can in any case be no doubt that Roman fortifications, as at York, Lincoln and Chester, were used by the Saxons as their main strongholds. The Saxons were more given to field warfare than to protecting defensive positions – no record exists of any great siege of the time.



DRAWING OF SAXON PERIOD OF A FORT.
(From MS. Junius II in Bodleian Library.)

The Saxon forts were called 'burhs' – the origin of our 'burgs' and 'boroughs.'

THE SCOTTISH BROCHS

The primitive castles have been the subject of much discussion by antiquarians. Their date is usually placed as being soon after the Roman departure, but quite a large volume of opinion considers that they are pre-Roman. All are agreed as to their being Celtic. In the writer's opinion, although this is not given with any dogmatism, they are post-Roman, and, like the Saxon work, were very likely inspired by Roman buildings adapted by a crude people. A strong argument in favour of this view is that no such buildings are found in Ireland; and they are more developed as architecture than any Irish pre-Christian buildings.

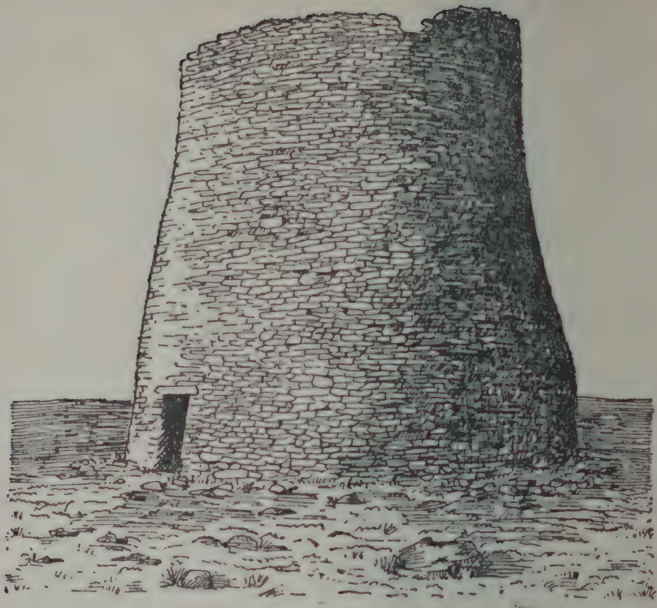
They are, therefore, included in this section of this history.

It should be noted that Mr. J. Wilson Paterson, one of the leading authorities, assigns the brochs to pre-Christian times. In correspondence with the writer he suggests a date of about 500 B.C. as the probable commencement of this type of fort; and that at Mousa was erected somewhere about half-way between that date and the Christian period.

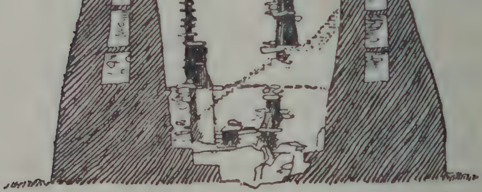
It must be admitted that there is strong evidence in favour of this date of origin, and it is quite likely that they are wrongly included in this section of this book.

The brochs are tower-like buildings sometimes over 40 feet in height, with walls as much as 15 feet thick. That at Mousa, in Shetland, contains a spiral staircase connecting to passages in the walls. The floors must have been of wood.

Other similar plans occur elsewhere, and many of



Exterior View.



Section, showing galleries, walls, etc.

THE BROCH OF MOUSA.

these forts have outer defences such as walls and fosses. They were clearly fortresses and intended for permanent occupation.

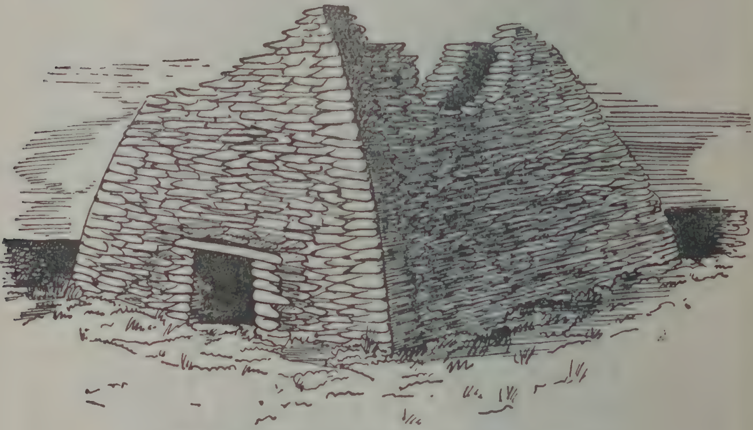
IRISH ROMANESQUE

In planning this book numerous methods were considered as to how the whole Romanesque period should be treated. It seems very desirable to deal with the subject as a whole, and, in the writer's view, to divide it into pre-Norman and Norman. An effort was also made to deal with the British Isles as one unit on the above plan. While it is a perfectly easy matter to draw a line of demarcation in England between the style that came in with the Conquest and that which preceded it, no such periods can be defined in Ireland.

The Romans never went to Ireland, and the Romanesque influence came to Ireland through totally different channels to those by which it reached Great Britain. So far as we know from remains that exist, and from records, a Romanesque style for general purposes was well established in Ireland long before it was in the sister island. In England, Saxon work seems to have been entirely confined to churches, so far as stone architecture is concerned. In Ireland at the same date it had spread into other forms as well.

It has been found necessary, therefore, to deal with Irish Romanesque entirely separately from the rest of this chapter.

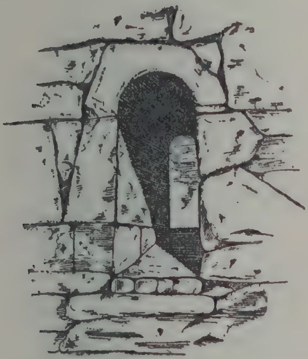
The earliest Christian buildings that still exist are the small buildings called cells and oratories, which latter are, nearly certainly, intended for the private devotions of their founders. They are frequently situated in the most lonely and romantic places – on mountain tops, on islands in lakes and in the sea; frequently nearly impossible of access. Sometimes they were solitary buildings, sometimes in connection with monastic settlements. As mentioned in the previous chapter, the earliest examples were modelled on the beehive huts, but soon changed to a rectangular shape. This change probably took place internally at first, as examples of such a transition occur notably in the plans of certain cells on the great Skellig, a wild rock that rises over 700 feet from the sea, and lying about 10 miles from Valencia. This rock is, like those well-known cases in Normandy and Cornwall, dedicated to St. Michael, the patron saint of high places. There was a very early monastic settlement here, which comprised a series of stone buildings grouped on an artificial plateau over



ORATORY, KILMALKEDAR, IRELAND.

500 feet above the sea. Among these buildings were five cells roughly circular outside and rectangular within, and one wholly rectangular. They are built like the old beehive huts, but have small openings at the top to omit smoke. They have doors but no windows.

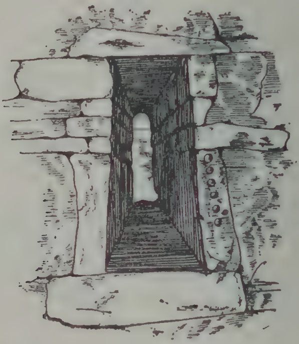
There are also two oratories built in a similar style of masonry but rectangular. They have windows opposite the doors. There is also a church of later date.



IRISH WINDOW, ARAN.

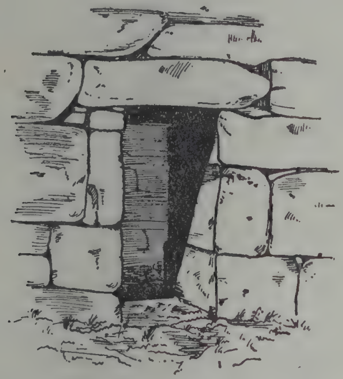
The development from these earliest buildings seems to have been fairly rapid. The examples which we have described are built of dry walling in undressed stone; but dressed stone, mortar-built walls, and a general increase of height and refinement of openings, etc., soon took place, until we get what may be regarded as a primitive type of Romanesque church with nave and chancel.

No roofs of the earliest examples of churches remain, and we do not know when the principle of the vault or arch superseded the old oratory method of roofing. The earliest vaulted examples that do exist are of the barrel type. The oldest chancel arches that remain are semicircular, and the stones are squared on the edges, and uncarved, although accurately dressed and fitted. The windows are very small and have an internal splay. They have a considerable variety of heads. Round arches occur freely, sometimes cut out of a single stone (not a true arch, of course), and flat lintels are very common. Pointed heads composed of two sloping stones also occur. The date of these early churches is impossible to determine. It is not until we get to about the sixth century that any degree of reasonable certainty exists as to the date of their erection. Glendalough, a famous monastic establishment in County Wicklow, was founded in the sixth century by St. Kevin. Many ruins remain to-day, some of which are



WINDOW, TERMONCRONAN CHURCH, IRELAND.

nearly certainly of the original foundation. One of these churches, believed to be the oldest, contains a most interesting door of a type found in the early forts and other buildings, but much more developed. It suggests an early Greek form. There may have been direct Byzantine influence at this period; indeed, there probably was, but at the same time we must bear in mind that this may have been a natural internal development possibly common to all stone trabeated buildings. The church known as the cathedral is generally accepted as being seventh century. Very fully developed Irish Romanesque was in existence before the Anglo-Norman invasion, but the entire subject of the origin and influence is one of great difficulty, and is largely conjectural. Cormac's chapel, consecrated thirty-seven years before the Anglo-Norman invasion in A.D. 1171,



DOOR, CHURCH OF ST. COLMAN, IRELAND.

is a fine example of Irish Romanesque. It consists of a nave and chancel with two square towers at their junction. The roof is barrel-vaulted. The chancel arch is heavily moulded. There is no east window, but there is an apse. The arches are most profusely decorated with that type of Celtic detail associated with the period. There has been much confusion over the date owing to the fact that there was a King Cormac in the tenth century whom tradition associated with the present church. There probably was an older church on the site, and the present structure is, nearly certainly, a very extensive rebuilding of this.

Some details of churches of this time are not unlike those associated with the Norman buildings. Chevrons and other similar mouldings are used, but the feeling is amazingly unlike the work found in England. The inspiration seems to have been entirely different.

Capitals are frequently carved as human heads with complicated interlaced patterns introduced into the hair. The general character of the details is similar to that found in metal-work and MS. decoration of the period. It is unique.

We cannot estimate the numbers of churches that existed in the seventh to the eleventh centuries. They certainly were very numerous. Large numbers were destroyed by the Danes, and doubtless many fell into ruins now obliterated. Ample evidence still remains, however, to show what a vigorous national style had developed, whatever its sources of origin, on highly individual lines.

ROUND TOWERS

No other form of ancient building in the British Isles has been so much discussed and fought over as these strange towers. There is a vast literature on the subject, and antiquarians of the seventeenth and eighteenth centuries and those that have followed them have published a variety of views and theories on their origin in such numbers as to bewilder the searcher after truth. Petrie largely dispelled this fog when he published his *Origin and Sources of the Round Towers of Ireland*. He did not settle every point with certainty, and a good many still remain controversial.

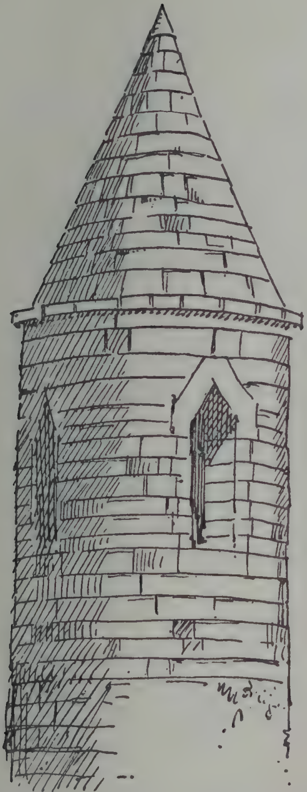
ROUND TOWER, DEVENISH.

Petrie definitely established their ecclesiastical association, and gave the period of their erection as between the sixth and thirteenth centuries. These dates have been modified by modern archæological opinion in view of more recent and further research by others. Lord Dunraven shows, very convincingly, that the earliest round tower was built in the ninth century, and that it was founded on European examples, very likely of Ravenna, where six such towers still exist. That such towers did exist in France and in England in connection with certain churches is practically certain, although to a very limited extent. Why they should have been developed to the pitch they were in Ireland is still a matter that requires elucidation. The round towers were due to Byzantine influence, and very likely Syrian.

They can be divided into four main groups, according to their style of masonry and details.

The towers are usually about 18 feet in external diameter and vary in height from 60 to 110 feet, and generally the detail of windows and doors agrees with that of the churches of their own date.

The towers were divided into stories about 12 feet high, the floors of which were carried on corbels. Each floor usually had one window. The floors were of wood and access to these must have been by ladders. They were roofed with a conical stone roof. The doors are always placed high over the ground, suggesting defence, and must, like the upper floors, have been reached by a ladder. The ground floor had no window, and in some cases is solid. The earliest towers were of rubble masonry, and which was grouted but not bedded in mortar. In the early types the quality of the masonry improves until, in the last examples, it is a fine ashlar. About seventy round towers still remain, ten of which are perfect in every way.



DETAIL OF CASHEL ROUND TOWER.

What were they for? This cannot be answered with an absolute certainty, but strong arguments can be produced to suggest a very definite purpose.

They were primarily keeps, or strongholds, in which the sacred vessels, books and other ecclesiastical possessions could be stored in times of stress.

The North Sea rovers during the eighth and ninth centuries perpetually raided Ireland, and the land was ravaged with fire and sword. Nearly all the monastic establishments were plundered during this period, and the lives of the monks must have been haunted by the fear of invasion and pillage.

A secondary use would have been as watch towers from which to look out for possible enemies. Further, they were used as belfries. Many fantastic theories as to their use have been put forward, but most of these cannot be taken seriously.

The Irish round towers have nothing in common with those which occur attached to churches in Norfolk and Suffolk. Their source of inspiration is certainly different. The Norfolk towers, while of the same general dates as those of Ireland in the later periods, are of Scandinavian origin, as is mentioned in the chapters dealing with English Churches.

CASTLES

The Irish castles, which are fairly numerous, are insignificant architecturally, as compared to those in Great Britain. Although it is certain that the Danes fortified some cities, no example of castle or town fortification exists to-day which is pre-Anglo-Norman in date, except Reginald's Tower, in Waterford, reputed to have been built in 1003. This is the one authentic building of this class definitely traceable as being prior to the Anglo-Norman invasion in the eleventh century.

No purely Irish castle exists. There are numerous remains of lake dwellings, but they are generally, although not always, of wood, and are not of sufficient architectural interest as to call for any description in a book of this nature. They are apparently of widely divergent periods, but the date of the earliest is most difficult even to guess at. Many of them were occupied through a long period of time. Some of them were still in use as late as the seventeenth century.

In Ireland over 230 remains of such dwellings have been discovered up to the present day, which is greatly in excess of the number found, as yet, in England and Scotland.

There can be little doubt that they were enormously later in date than the better known lake dwellings of Switzerland.

The writer has hesitated to make any mention of these dwellings in this book, as it is impossible to bring them into any arrangement suggested by style or date, yet they seem of sufficient importance to demand the brief note which has been given. They are too interesting to be ignored entirely.

CHAPTER FOUR

Romanesque

NORMAN

This is the first of the great English styles, and is dealt with here under two main headings – Ecclesiastical, and the Castles, with their appropriate subdivisions.

The Norman period is usually taken as lasting from 1066 to the year 1200, or thereabouts. These dates must, however, be considered as being rather vague. Pure Norman work had been introduced into England before the Conquest. Edward the Confessor began the rebuilding of Westminster Abbey in about 1050, in the Norman style, and probably with Norman craftsmen.

After the middle of the twelfth century a transition leading to Gothic was spreading widely through the country – the general aim being refinement, rather than solidity and boldness, which characterized the true Norman. The end of the twelfth century, however, can be regarded as the finish of the Romanesque in England and Wales, although not in Scotland and Ireland, where the tradition survived to a later date. A very important point in connection with the advent of the Norman work must be borne in mind. Up to this we have been dealing with a very limited amount of building in restricted areas. The builders were a crude people with backward tools and little skill. Their choice of material was affected by these limitations. Now a very different situation arose. Important buildings, scattered over the whole country, were undertaken with great energy. Large numbers of skilled designers and craftsmen were available. Very much better tools were used; consequently a wide variety of materials became not only possible but necessary, owing to the different geological formations of the vast area now being covered. Granites, sandstones, millstones, grits, chalk and flint were all brought into use; also all suitable native timber. This wide range of material gave each style at any given moment an unusual elasticity, and to a considerable extent determined the vagaries of local design.

This variety continued throughout the whole subsequent history of English building, and is one of its main factors which is so attractive.

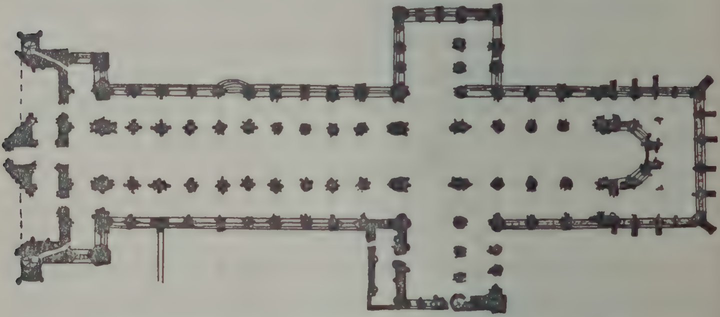
CATHEDRALS

It must be remembered that very few cathedrals exist as they were first planned. Most of them were added to or remodelled over long periods by successive generations of builders, and in different styles as these became the fashion.

There is usually some confusion over the names Minster and Cathedral, and the writer has often been asked to differentiate between the terms.

The early and proper meaning of the word Minster is a church attached to an abbey. The Cathedral is the principal church of a diocese in which is the throne or chair of the Bishop. (Ex cathedra, from the Greek Kata, and Hedra: a seat.) Most of the cathedrals, although not all, were originally minsters, and the earlier term has survived, as at Westminster and York, as the long-established and familiar name associated with the building by habit and tradition. The cathedrals, built as the principal church of the diocese, as, for instance, Salisbury, and intended from their foundation to house the Bishop, and not attached to abbeys, have never been minsters.

The date of the first application of the word Cathedral is controversial – it is probably not earlier than the thirteenth century.



PETERBOROUGH CATHEDRAL – A TYPICAL PLAN.

An important feature of the English cathedrals is their great length in comparison to the width. This question has been extensively discussed, and it has been suggested that it followed the Saxon tradition, where the same proportion seems to have occurred. This, to the writer, is the true explanation, and shows why this great difference in proportion of plan to those of French nationality of similar dates occurred. It is a feature to which much of the charm of Norman and Gothic work in England must be attributed. It gives a dignity in church building not achieved elsewhere.

We may here consider the general arrangement of the plan and the disposition and names of the various parts. These varied but little in their main arrangement throughout the entire period of cathedral building, although, of course, considerable development took place. The plan is usually a Latin cross, the short arm of which is formed by the transepts. The tower, sometimes completed by a spire, is carried on the crossing (the intersection of nave and transepts), or at the west end. Generally the nave is the main portion of the building to the west of the crossing, and the portion to the east the choir. Each of these parts is subdivided into the central nave and side aisles, which are divided by piers or columns running in a row for the whole length of that part. The nave columns – the nave arcade – carry the main walls of the church which rise over the lean-to roofs of the aisles. Above the nave arcade there is a row of small arches opening into the space under the lean-to roof of the aisle. This story is the triforium. Above this are the windows in the main wall which are the principal source of light. This is called the clerestory.

The Lady-chapel lies beyond the choir, in the early examples, as in Peterborough: later, it is sometimes placed to one side. In Norman work a special feature is the massive size of the piers and columns in relation to the openings, which give to the eye that satisfying suggestion of adequate strength often lacking in later Gothic work.

The cathedrals, contrary to continental practice, are nearly always placed in a wide open space – the close. To this feature they owe no little part of their charm.

Norwich is probably the most entirely Norman cathedral that exists to-day. Most of them were commenced in this style, but in many cases they have been so remodelled, or rebuilt, that but little of the original structure remains in evidence. The following contain a large amount of Norman work: Canterbury, Peterborough, Ely, Durham, Gloucester, Rochester, Winchester (the Norman nave here was remodelled into late Gothic), Hereford. This list is not intended to be complete, but only to indicate some of the principal cathedrals where Norman work remains.

WESTMINSTER

Westminster Abbey, originally Saxon, was rebuilt, as has been mentioned, entirely in the Norman manner between the years 1050 and 1066. The plan was cruciform and the nave had aisles. The tower was carried over the crossing. The aisles were vaulted; and many authorities consider that the nave was also. It has been customary until recent times to regard the plan of the Abbey as unique and entirely original. Some years ago, however, Professor W. R. Letherby brought forward evidence to show that it had been copied from the Abbey of Jamieges, and most of the experts on this period are now agreed that this is the case. The main point of this type of plan is that the apse is built on columns, thus forming a surrounding ambulatory, giving a spaciousness and charm hitherto unknown – an entirely new factor was introduced.

SCOTLAND

The cathedral of St. Magnus, at Kirkwall, in the Orkneys, is the best example in Scotland of Norman

IFFLEY CHURCH.

EAST SUTTON CHURCH.

style. It is said that this was not completed until the sixteenth century, but there is little doubt that the main bulk of the structure was carried out in the middle and latter period of the twelfth. It was begun in 1137. Whatever its date it must be regarded as singularly uniform in style, and a characteristic Norman building.

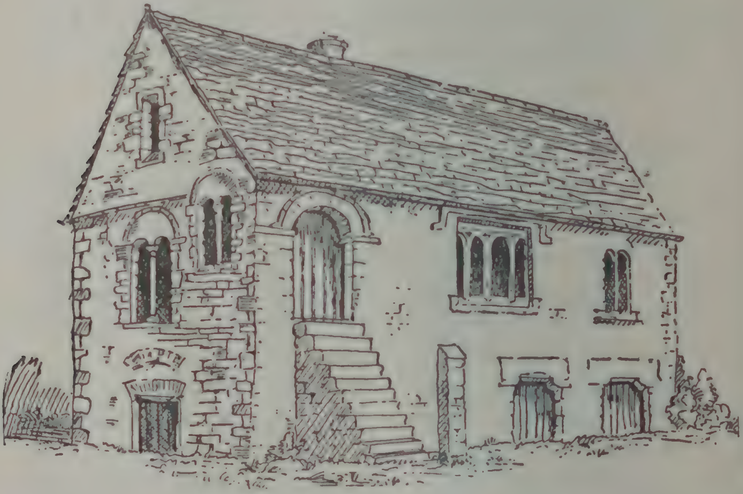
In Ireland the Norman work is very unimportant; its influence was, indeed, hardly felt outside the small English garrison area known as 'the pale,' on the east coast.

CHURCHES

There are numerous examples of Norman, or partly Norman, churches throughout Great Britain. The Chapel of St. John, in the Tower, is as good an example as can be found, and Barfreston Church, Kent, and Iffley, Oxford, are others. No two persons would agree as to which are the best or most interesting of those that exist: it is a matter of opinion.

The first point to note in Norman churches (as in the cathedrals) is that the plan is far longer in proportion to width than in continental examples. Transepts have been introduced forming the crossing, which generally carries the tower. The towers are square, and the whole effect of the building is pleasing on account of the great weight of piers and columns carrying the superstructure. This effect of rude solidity is accentuated by the small size of the doors and windows which are deeply splayed, or recessed, and semicircular headed.

The walls were very often insubstantially constructed despite their solid appearance. This has been a perpetual source of trouble to those whose duty it has been to preserve the buildings of this time. The Norman method was to build a tremendously thick wall thinly faced with dressed stone, and to fill in with a thick rubble core. This core was often insufficiently bonded to the face, with the result that frequent collapses and failures occurred later on. The walls are often arcaded: a new and very decorative feature. The piers are short, often polygonal, and very thick in proportion to their height. Columns are circular, thick, and generally have 'cushion' capitals, or a modified form of these, finishing in a square abacus.



BOOTHBY PAGNELL MANOR, LINCS.
(By permission of Messrs. B. T. Batsford.)

Buttresses, so important later on, were not an important part of Norman design. They were used externally to strengthen walls where an extra thrust was imposed. They were flat and very shallow and ran from parapet to ground without any alteration in thickness, and were finished with a sloping or 'weathered' top. Very occasionally they are half-round on plan.

Vaulting was used in smaller spans, and this was of a plain 'waggon-headed' or barrel type, with simple right-angle intersections as necessary. Some churches were entirely vaulted. In timber roofs the trusses were of simple form and generally about 45-degree pitch. Sometimes the trusses were exposed, but a flat, boarded ceiling was often employed. The roofs were generally covered with lead, but slates and shingles were used also.

So far as is known no Norman nave was vaulted, although they all appear to have been designed to carry vaults rather than timber roofs. Westminster Abbey, as is mentioned elsewhere, may have been vaulted in the eleventh century, but this is quite conjectural, and no certainty exists about it. This whole question is very difficult, and the arguments cannot be entered into here – they are based on highly specialized and technical grounds. The writer's view is that some tradition, or school, must have existed which demanded a vaulted roof; and that the architects and masons were afraid of the task when it came to the point. Durham, begun before 1100, is vaulted, but it is now certain that the vaulting was a later addition; probably 100 years later. Some very distinguished authorities, however, place the vaulting as early as 1130 or thereabouts. This cannot be regarded as settled, and the whole question is still an open one.

The Normans used a large number of mouldings, the

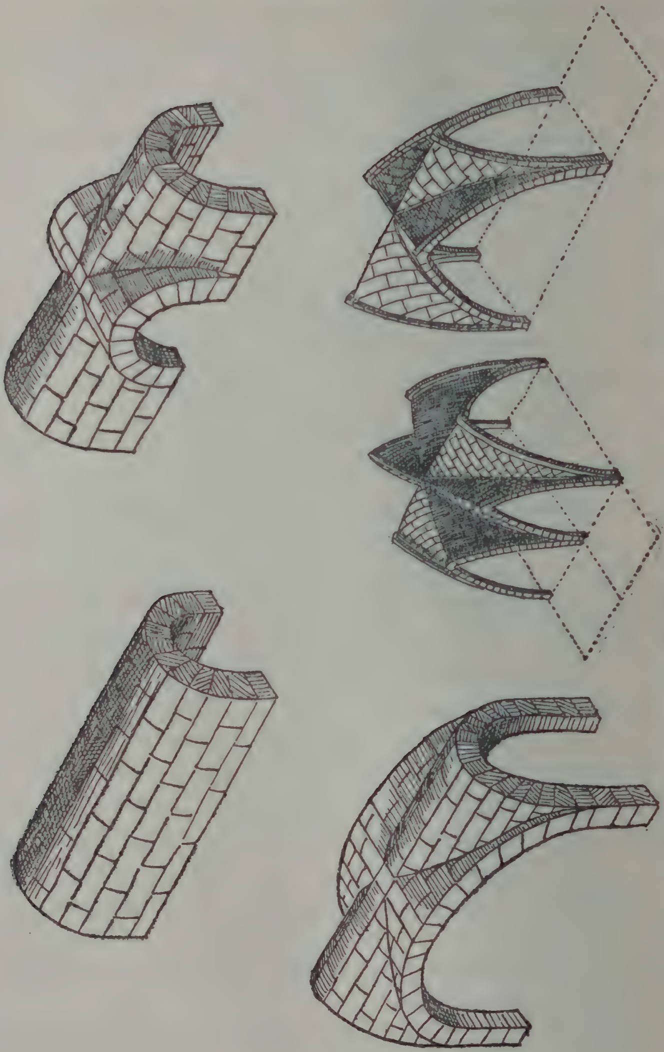
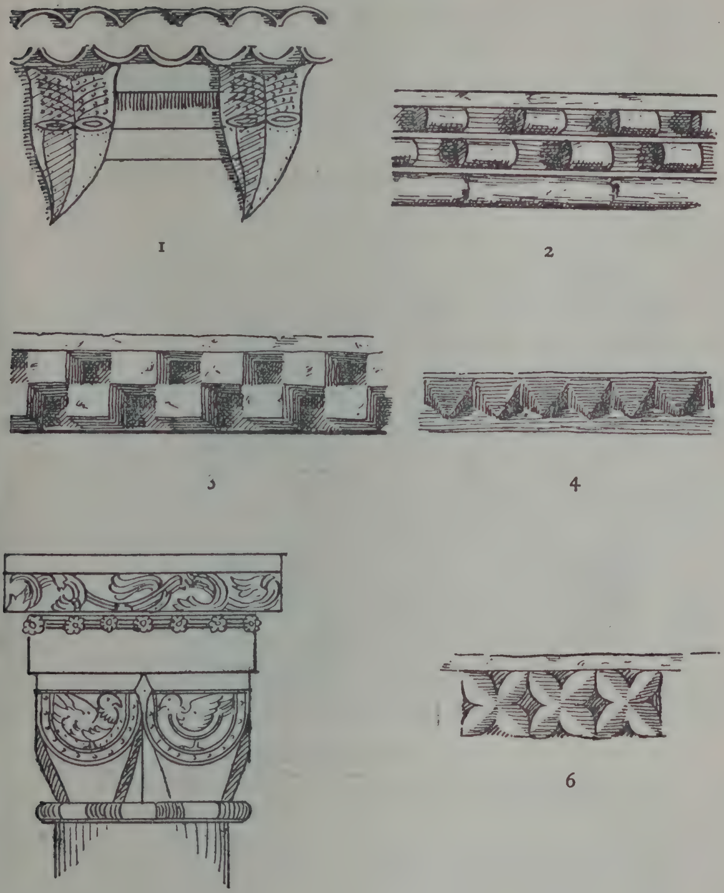


DIAGRAM SHOWING DEVELOPMENT OF GOTHIC VAULTING.

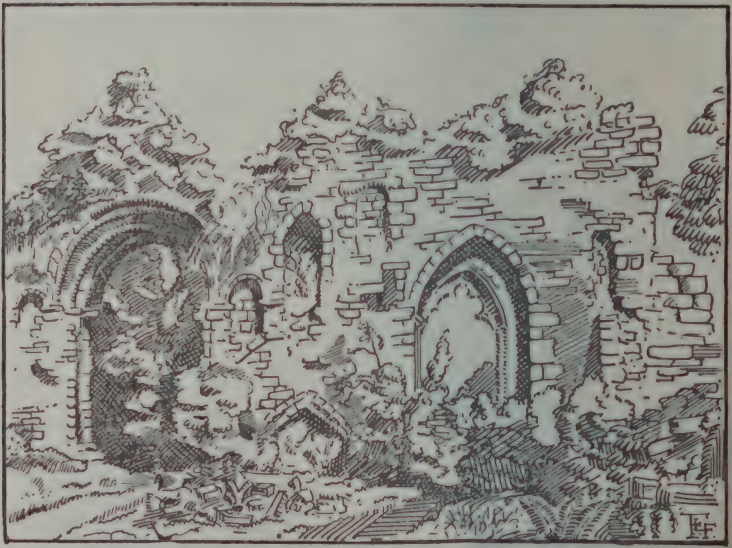
DETAILS



1. Beak-head.
2. Billet.
3. Square Billet.
4. Zig-zag.
5. A Norman Cap.
6. Dog-tooth, mainly Early English.

NORMAN AND EARLY GOTHIC ORNAMENT.

chief of which are the chevron, billet, nail-head and beak-head; and the work of the later period is very highly decorated with these. Wall arcades are used internally, largely for decorative reasons, and intersecting arches are freely employed in these on the lower part of walls to aisles in the later buildings.



ST. JOHN'S, CHESTER.
A good illustration of transition from Norman to early Gothic.

The Norman churches were very fully decorated in colour internally. All sorts of schemes were employed: figures, scenes and repeating patterns. At Canterbury one chapel, in the crypt, contains the whole original colour scheme. At Ely and elsewhere portions remain which clearly suggest what the originals must have been like. There was probably a Byzantine influence in this free use of colour and mural painting. Doorways, and other details, were also painted externally.

Lozenges, stripes, etc., in black and white, and colour, were used in a bold way, as in the roof at Peterborough; ceilings, when flat, were always coloured. Variations in stone were also used to produce colour patterns. Stained glass was introduced to windows during the latter part of the period for the first time in Romanesque work. In certain aspects of design these monumental Norman churches have never been surpassed; and when their colour was fresh and their stone-work clean and sharp cut, they must have been among the greatest artistic triumphs of the West. This test of considering what a building looked like when new is a severe one – a great deal of later Gothic work does not emerge well from it.

CIRCULAR CHURCH TOWERS

There is a peculiar development in church towers on the East coast, in the Norman and early Gothic phases, which demands some notice.

In Norfolk and Suffolk and their surrounding areas there exist a large number of circular towers attached to churches. These are of Scandinavian origin, and cannot be associated with the Irish round towers, some of which are of the same period. It is certain that their sources of inspiration are entirely different to those of Ireland, although a cursory examination tends to suggest the simple and rather attractive idea of a common origin; this must be rejected. They are (while on broad lines and allowing for local differences rather similar) of different purpose, origin, and entirely distinct in feeling. There can be no doubt that the sources of inspiration are utterly divergent.

A study of Scandinavian building and that of Ravenna will make this perfectly clear to anyone who may have doubts on the question.

SCOTTISH CHURCHES

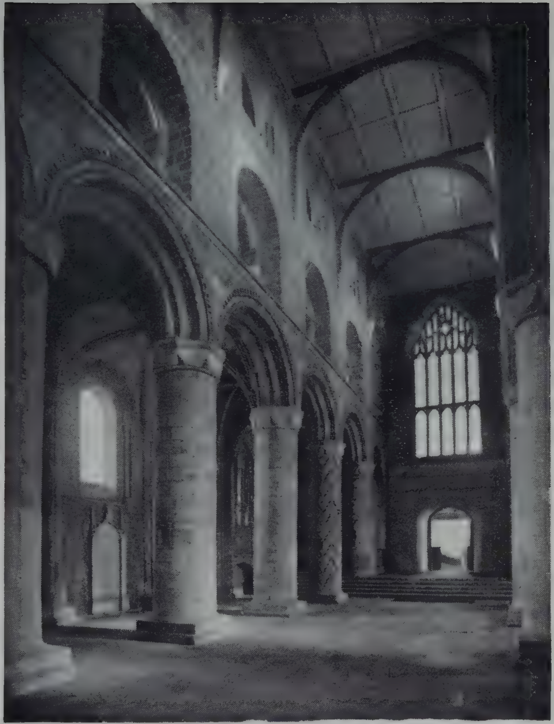
The Scottish churches of the Norman period are entitled to receive some special consideration.

The general style and characterization were as in England, but in a thinly-populated and poor country it is obvious that no great ecclesiastical architecture could develop as it did in the more wealthy South.

Although the Scots churches are small and not very important there are individual specimens which cannot be ignored. Leuchars is probably about the best example of a church north of the border of this period, and while small, it is exceedingly well proportioned, and its detail is vigorous, rhythmic and refined. Dunfermline Abbey is another interesting building of the time.

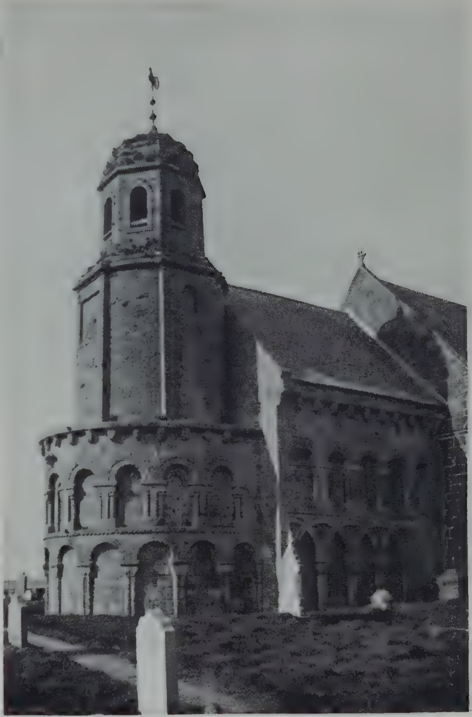
Scottish Romanesque shows a direct influence from Ireland in the eleventh and twelfth centuries, and there is indeed a good deal of evidence to suggest that its origin owes more to Ireland than to England; as in its Gothic period Scottish style owes more to France.

Scottish architecture, indeed, in all periods, is exceedingly difficult to unravel. No country whose architecture covered so short a time presents more difficult problems as to its sources of inspiration.



[*Photo by Valentine & Sons.*

THE NAVE, DUNFERMLINE ABBEY.



[*Photo by Valentine & Sons.*

LEUCHARS CHURCH.

The Romanesque manner survived in Scotland, as in Ireland, long after the Gothic period had come into its own in England and Wales.

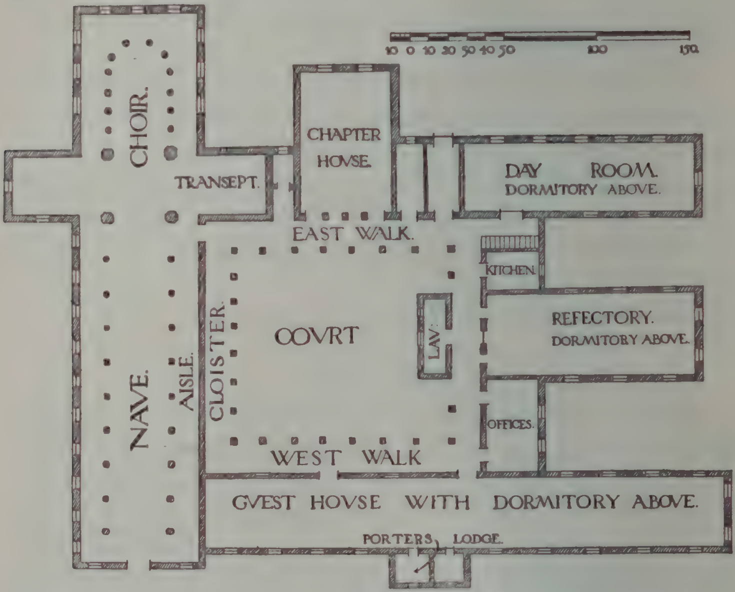
Also in the eleventh and twelfth centuries there seems to have been a Scandinavian influence, which is natural if one considers the geographical and economic conditions of the area.

The churches of Jedburgh and Kelso, although not started until the end of the twelfth, or the beginning of the thirteenth century, are typical examples of well-understood Norman. The Scottish designers, apparently, were not seeking new things, but were rather looking back to a thoroughly satisfactory and well-worked-out style.

Many people will think that they were right.

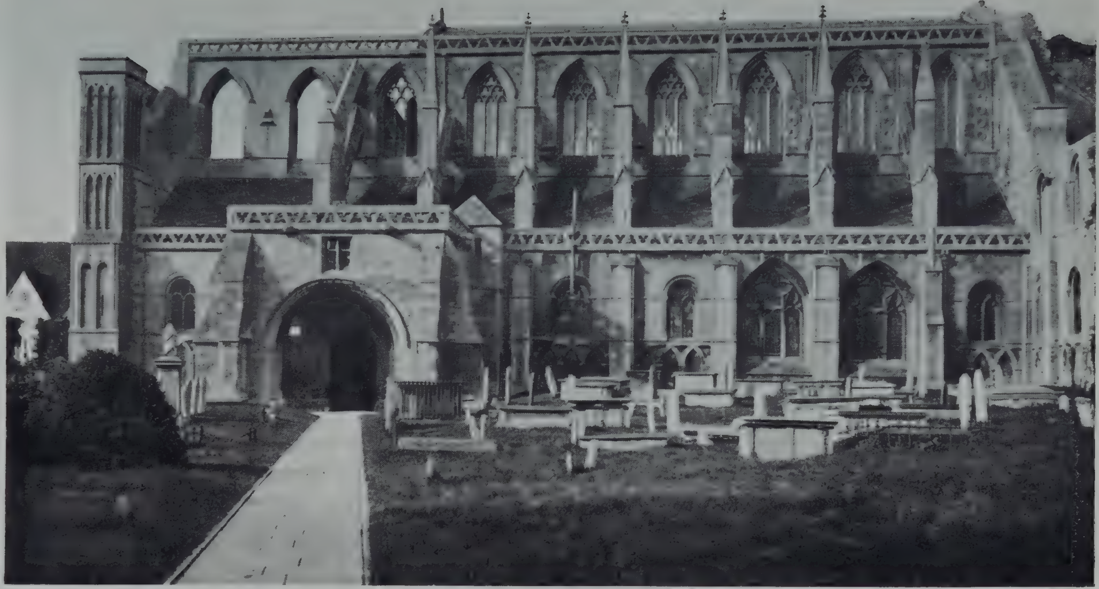
THE ABBEYS

The earliest type of monastic building seems to have been planned on the general arrangement of a large Roman Villa. Records show that the disposition of the various units seemed to have been very similar in the twelfth century to what they were at a much earlier date. The monasteries in Britain have been so broken up and the remains so mutilated that it is impossible to get a complete plan. In 1871 Mr. E. Sharpe, after the most diligent research throughout Europe, produced plans which he considered illustrated the typical Cistercian abbey. This still remains the most authoritative restoration. The church was, naturally, the great feature of the abbey. This was the dominating factor in the lay-out. Roughly speaking, the whole formed a square of which the church made the north side. The centre courtyard was the cloister; this was surrounded by a covered arcade termed the cloisters. On the east side was the chapter-house, with the monks' dormitory over it. In Cistercian monasteries the chapter-house was divided into three by rows of columns. The sacristy lies between the church and chapter house and is approached from the church. Beyond the chapter house lies the day room. The south side of the cloisters is bounded by the refectory and kitchen offices.



DIAGRAMMATIC PLAN OF ABBEY OF TWELFTH AND THIRTEENTH CENTURIES.

This plan is not taken from any special monastery, but is typical of the general arrangement of the period.



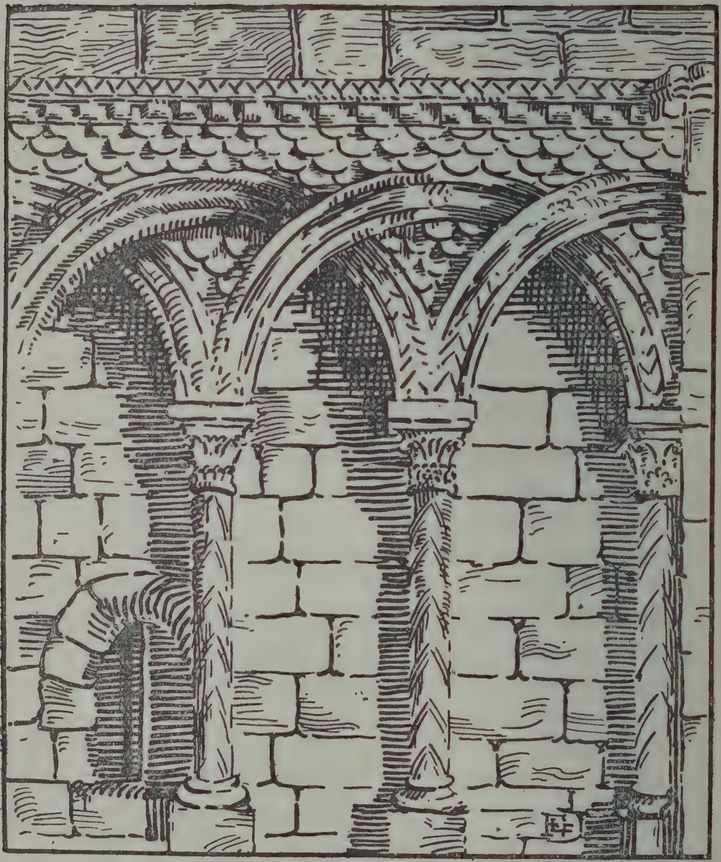
MALMESBURY ABBEY.

Along the west side of the cloister lies the 'hospitium' or guest house, with the porter's lodge in the centre. Over the guest house was the guests' dormitory or 'lay room.' At this time the monastery was also the inn, hence the large amount of space given to these apartments. The abbot's lodge and the infirmary were separate buildings. The whole series was surrounded by a wall of a more or less defensive nature, forming the inner court. The outer court contained the various workshops, stores, etc., for the tradesmen of the abbey, and for the lay brothers engaged in agriculture. Such was the general arrangement of a Cistercian abbey in Norman times. Later the plan was much elaborated. The dormitory was divided up into cells, the open windows of the monks' apartments glazed, and such other changes introduced as were calculated to secure more comfort. The early simplicity of style was forgotten and the monastic buildings of the fifteenth century are as elaborate and ornamented as the cathedrals.

The arrangement of the other monasteries was much the same as in those of the Cistercian, except for the Carthusian, where vows of solitude and silence were taken, and where each monk had a small apartment and garden to himself.

In Ireland the abbeys, as apart from the early monastic settlements, are mainly Cistercian, and we know that about twenty-five had been established by the time of the Anglo-Norman invasion in 1171. The direct influence of these abbeys was from England and France.

In connection with the churches and abbeys there is a certain rather special phase of development that requires some brief consideration.



CHRISTCHURCH PRIORY, HANTS: DETAIL OF NORMAN ARCADE.

There were, in addition to the monastic orders already mentioned, certain military orders. The Knights of the Temple, or Templars, founded at Jerusalem very early in the twelfth century; and the Knights of St. John of Jerusalem, founded as a non-military order to look after the interests of those on a pilgrimage to the Holy Land and to care for the wounded Crusaders on their return. In the twelfth century the latter reorganized their system and became a military order on the same lines as the Templars. They were known as the Hospitallers.

They built churches in England, founded on the model of the Holy Sepulchre at Jerusalem, which were round on plan: their detail corresponded otherwise to those of their period. Only a very few of these survive, in London, Northampton and Little Maplestead.

Other round churches, usually attributed to the Templars, as in Cambridge and Clerkenwell, do not seem to have been built by these orders, but were copies and merely followed their fashion. A special point about these round churches is that the interlacing arcade was a prominent feature in their design. We do not know their original number, but it cannot have been very large. They were most unsuitable to Christian worship, and had only a very temporary vogue.

CASTLES

Directly after the Conquest numerous castles were built, principally in order to control the local population. They always commanded fords, intersections of trade routes, ports, or a combination of these; in short, important strategic points. These castles were, however, residential as well as being for military and administrative purposes, and in many of the later ones the domestic offices reached a high state of development. The Norman noble of the early times had a simple standard of what was suitable to his domestic life. The first castles of this period are simple fortifications and great elaboration was not reached till after the Norman period. The real transition from the castle to the unfortified house did not begin till the fifteenth century. In Scotland and Ireland the fortified castle remained much later owing to the more unsettled social conditions. In Ireland numerous cases existed where unmodernized castles were inhabited in the seventeenth and even in the eighteenth century.

The earliest Norman castles were those fortresses erected under the supervision of the Norman knights brought in by Edward the Confessor to defend Herefordshire against the invasion of the Welsh.

What is probably the oldest Norman castle was one built by Richard Fitz-Scrob about the year 1050. This is in Herefordshire, and is known as Richard's Castle.

It is of what has come to be called the 'Motte and Bailey' type, which was universally used by the Normans at first. It consisted of an artificial mound (the motte) with a deep ditch around it, usually circular.

In the centre of the mound stood the castle called the 'bretasche,' which was a wooden structure, which varied in size, and which it is believed was a two-story building about 30 feet high.

It is nearly certain that in all cases a bailey or base court was added, which was a piece of ground at the foot of the motte enclosed by a mound and ditch and palisade. The ditch joined the main fosse.

The bailey contained the buildings for the garrison and stables, etc. Sometimes a second bailey was added, and its position varied.

The Bayeaux Tapestry shows a castle of this date.

No trace of stone is found in this type; they were built entirely of wood and earth, but in many cases the old motte was used as a foundation for a later stone building, and the wooden palisades were substituted by stone walls.

We do not know the dates of the first Norman stone castles in Britain, and except in two cases none may have been built till about 1100. The exceptions are the White Tower of London and the Keep at Colchester, which were built in the last quarter of the eleventh century.

The earliest stone type consisted of a circular mound of earth surrounded by a dry ditch and bank; on the crest of the latter was placed a timber palisade. Inside the palisade stood the square tower or keep, in this type a simple building with no elaboration or plan or offices. This is the sort used in the Norman military settlements. Later the palisade was replaced by a stone wall. Not many of this type remain; some have fallen or been pulled down for the sake of the stone they contained, or been absorbed into later work; others were abolished by agreement with the nobles after the civil war between Stephen and Matilda. The design gradually changed through various influences, among these the lessons learned on the Crusades from examples of Byzantine engineers.

The plan of the walls, of course, varies enormously and was mainly affected by natural features, rock, slope, water, etc. In the more developed specimens the walls were flanked with projecting towers so that defence was more efficient. The typical arrangement of the early plan was a main outer wall usually with an external moat either wet or dry. The main entrance, called the outer gate, was protected by a drawbridge and portcullis, and gave on to a court called the outer bailey (or ward).

A further gatehouse led to the inner bailey (or ward), in which was the keep. In the Norman work, the outer ward did not surround the inner, but they were in reality courtyards attached to the keep, which was often placed on the wall dividing the inner and outer wards. It must be clearly borne in mind that the keep was the main defence – the outer walls being only accessory at this time.

In the early Norman castle, the keep is a plain rectangular or square building with massive walls and a vaulted ground floor or basement. The entrance was on the first floor and was gained by a ladder or stone stairs, in the latter case protected by a small fortified building called the forework.

In the simplest examples the Great Hall was situated on the first floor and was the common room for meals and sleeping also, except for the lord and his family, who slept in apartments on the second floor. The cooking is usually supposed to have been done in a kitchen situated in the bailey, and this apparently must have been so. There seems to have been no alternative in this simple form of keep. The roof was surrounded by battlements for purpose of defence. The various offices were in the bailey as was the case in the wooden castles. There was no heating, except by means of portable braziers, to rooms other than the hall, which had a central fire-place with no chimney. We do not know how many castles existed in the eleventh century, but there is no doubt that their numbers have been grossly exaggerated by various writers. The number, so far as they have been traced, which can be regarded certainly as eleventh century, is under one hundred: of the twelfth century all estimates are purely speculative. (One or two authorities suggest 1,100 – in the writer's view an absurd exaggeration.)

Many writers have laid down rules as to the exact arrangement of the various floors as if these were always constant. In actual fact they varied considerably. In many examples the Great Hall is on the second floor, and the first floor in this case was probably used as a guard room and also a kitchen. The family bedrooms in this type were on the third floor.

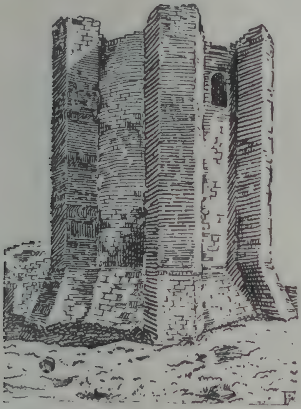
The question of the position of fire-places in these halls has been much discussed and many authorities have stated definitely that no wall fire-places existed, except in the kitchen, before the fourteenth century. This is one of the mistakes, so common in such matters, that has been handed on from writer to writer. We do know that the central fire-place was most common in the early castles and halls even up to the end of the fourteenth century; but wall fire-places frequently existed before the fourteenth century in lesser apartments of castles and manors; on the other hand, the central fire was carried on in some cases up to the fifteenth century.

Wall fire-places in halls of castles, however, occur in the thirteenth century if not in the twelfth. They were perfectly well understood by the Normans, and the central fire was obviously retained on account of the superior heat it gave out, and because a larger number of people could gather round it than could sit round a wall fire.

KENILWORTH CASTLE: THE KEEP. NORMAN, WITH FOURTEENTH-CENTURY ADDITIONS.

Conisborough Castle, for instance, erected about 1200, has two beautiful wall fire-places, with canopied mantels carried on columns, which, beyond all question, are original. Conisborough is a fine example of a circular keep, of which very few exist.

Many castles contain small chapels or oratories built into the thickness of the walls, or in the towers. The construction of the walls is important in this connection. They were really double walls and the necessary passages, stairs, and minor apartments were carried between these with vaulting over to form the ceilings. The spaces not required for these were filled in with rubble, making the two walls into one mass.



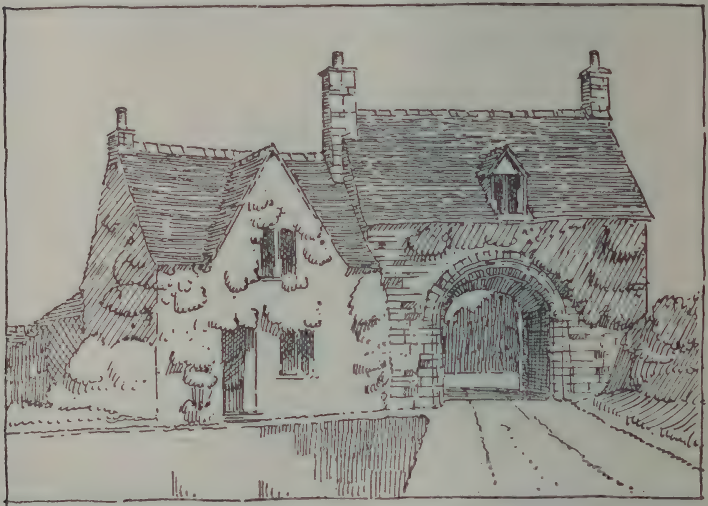
THE CIRCULAR KEEP, CONISBOROUGH CASTLE.

The keeps vary in size, but the average extent of the Great Hall, measured internally, was about 40 feet by 30 feet.

Sometimes the floors were formed by single joists running from wall to wall, at others where the span was too great to allow of this simple method, a circular arch was built in the middle of the room from side to side on which the joists rested. In a few cases stone vaulting occurs.

The windows of the Norman castle were unglazed and were covered at night with leather curtains or wooden shutters.

Manor-houses and granges existed at this time side by side with the castles, and these were, no doubt, on the same general simple lines as the Saxon houses, and consisted of a hall and kitchen with a few lesser apartments. Probably they were generally of wood like the Saxon houses. We do not know much about these, as no example completely of the Norman period survives. A good many reconstructions have been made in special studies of the period which can be accepted, in the main, as correct. The manor-houses were the houses of the lords of the manor, and the granges the houses on the out-lying farms of the monasteries.



THE GATEHOUSE, CIRENCESTER ABBEY, TWELFTH CENTURY, WITH LATER ADDITIONS.

CHAPTER FIVE

Gothic

THE THIRTEENTH CENTURY

As has been noted elsewhere, no very satisfactory division of periods can be made and fixed by exact dates. The Gothic style is no exception to this and presents the same difficulties in this respect as the others. There are, broadly speaking, three phases of Gothic style whose diversity is such that they can be so classified; but there were no lines of demarcation between them and the work which preceded and followed each. The transition stages are sometimes as long as those of each style, and were a definite exposition of certain phases of thought. All kinds of elaborate subdivisions have been attempted, and some writers have gone so far as to make eight or ten. This is, however, striving for a precision which is probably undesirable and certainly unnecessary except to those who are making a special archæological study of the time. For the general reader three main divisions are adequate and fully explanatory. These separate conveniently enough, though rather roughly, into the thirteenth, fourteenth and fifteenth centuries, the work of which is called respectively Early English, Decorated, and Perpendicular. Gothic work proper covers just 300 years. That transition phase usually called Tudor is generally included with Gothic. It is here, however, dealt with as a subdivision of the Renaissance for reasons which are given in the part of this book dealing with that period.

The term Gothic demands some little explanation.

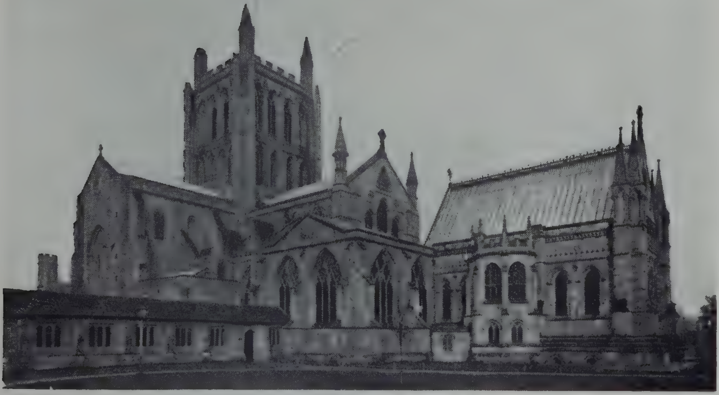
It is misleading – this art which succeeded Romanesque was not invented by the Goths; neither did they practise it. The name is accidental.

The word is supposed to have been used in the first instance by Raphael in writing to Pope Leo X, in which letter, or report, he discussed certain buildings which it was proposed to put up in Rome – Gothic then symbolizing 'barbaric,' as opposed to Roman culture.

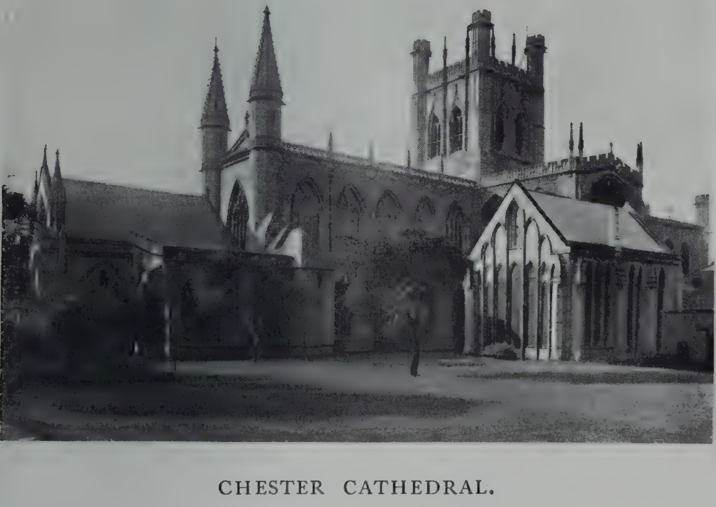
Vasari, the Italian writer of the sixteenth century, used 'Gothic' freely, and it is probably mainly due to him that the term has become one now in general use. It is an unfortunate name: many attempts have been made to alter it, but it is now too late and it must be accepted; although it causes much confusion to students and to general readers.

The Gothic of England is directly derived from France. It must be emphasized that, shortly before and after the Norman Conquest, several direct importations of what one must call French style occurred. Further, there was a permanent and continuous French influence going on from the eleventh to the fifteenth century. The influence of the Cistercian monks in the twelfth century is most important. Quite celebrated churches and minsters were, indeed, in some cases practically copies of French examples. It would be out of place here to discuss in detail how French Gothic arose; but it may be said that it was the native development in Northern France of Romanesque. It had, of course, other elements, including Byzantine.

The Gothic style then came to us from France, and as a fairly fully worked out system, although its development in England proceeded on very different lines to



HEREFORD CATHEDRAL — 13TH AND 14TH CENTURY.



CHESTER CATHEDRAL.

those of the rest of Northern Europe in regard to detail, and indeed of broad arrangement of plan. The quality which one can only describe as 'feeling' is distinct. It evolved a national character at an early stage, and in spite of the fact that it was exotic.

TYDD ST. MARY'S, LINCS.

English Gothic, especially in the early periods, is the finest example of this style developed in Europe.

Wren, our greatest English architect, says, 'We copied Gothic . . . from France . . . which nation we imitated in all ways, even when we defied them.' No truer word has been said; by 'defy,' disregard, rules is meant. We disregarded the parent style and produced a thing of greater value.

The thirteenth-century period – sometimes called the Lancet style, from the shape of the windows which form so frequent a feature of the churches of the time – shows a marked divergence from its Norman predecessor.

The main differences between Gothic in its early stage and Norman are, naturally, not nearly so marked as they are in the later.

The plans of churches and cathedrals do not, at first, differ from the Norman. The walls retain the great thickness and the same general massiveness obtained, although in some respects modified. Buttresses are greatly developed as a new feature from those of the flat, shallow type used by the Normans; and as the engineering skill increases walls grow less thick, and the weight of the roof and vaulting is carried more on the buttresses than on the walls. Buttresses in their early stage have about the same width as their projection, and generally diminish in size as their height increases. They are broken into stories, or stages, by offsets which are sloped, or, as it is generally termed, 'weathered.'

KISLINGBURY - NORTHANTS.

ARCHES

The pointed arch became general, and entirely superseded the round Norman arch and the openings consequently became of different proportion. The pointed arch was first developed in vaulting and spread as a natural result to doors and windows.

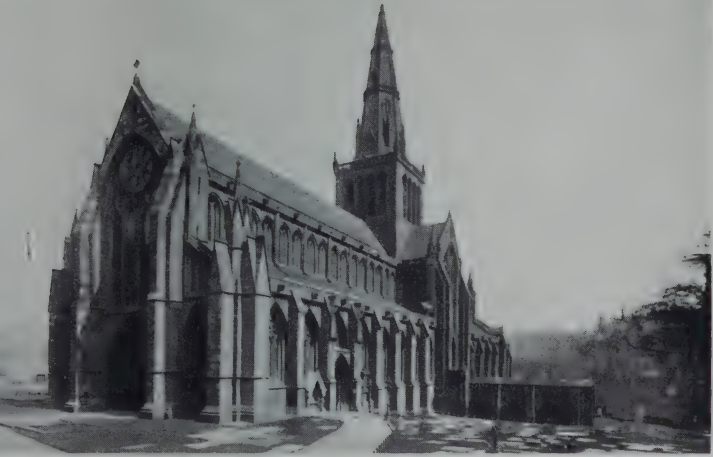
The origin of the pointed arch is often ascribed to the arcade of the Norman period with its intersection of round arches. This is a myth. It was imported. We cannot be certain where it was first used. It has often been suggested that Canterbury, rebuilt in 1174 under direction of the French architect, William of Sens, is the earliest example of the pointed style in England. This may be so, but it is probable that others were begun before that date.

The use of foliage in carving became general, and the detail entirely broke away from the geometric Norman patterns.

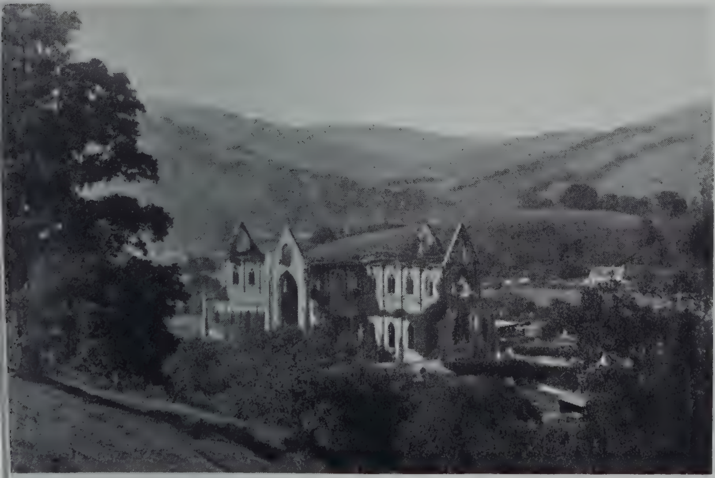
At the end of the thirteenth century tracery in windows was developed; and this growth is indicated in the diagram of windows (see p. 145).

The character of the piers and columns is altogether different from the Norman. Piers are made up of a round or octagonal shaft often surrounded by smaller columns. These columns are frequently of different material to the piers, and are secured in position by horizontal bands of stone built into pier or column. This construction is not particularly good, and frequently the variation in the stone used is considerable, and its movement under a load very different, consequently all sorts of strains, settlements and fractures occur.

The roofs are steeper than in the Norman period. The general nature of the mouldings is greatly developed. These are usually deeply undercut – a special feature of the thirteenth century.



GLASGOW CATHEDRAL — 13TH AND 14TH CENTURY, WITH 15TH CENTURY SPIRE.



TINTERN ABBEY.

One of the main attractions in detail is that a dog-tooth moulding worked with a chisel takes the place of the axed zig-zag moulding so common in the Norman period.

The chisel superseded the axe as the mason's tool. A new feature arose in a frequent arrangement of niches containing sculptured figures. This was not altogether a happy movement, and more will be said about it later.

The monumental quality of Norman work, while still there, in this Early Gothic period is not so marked. Design is beginning to get more fussy. It has not got the earlier repose, it is for ever striving, and consequently has a restless quality.

The decoration is conventionalized. Diaper patterns are often used, painted and carved. Various authorities have put forward theories proving, or trying to prove, that the carved diapers of this period are following the original lines of painted designs of earlier work. This may be so, but there is reason to believe that these carved diapers were also coloured at this time. They probably were a development from an earlier form, but we can only think of this as a probability. There is no certainty about it – the inspiration may have been entirely different.

GLASS

Coloured glass has become very much more important than previously. The individual pieces of glass are very small and the leads very thick, and subjects hardly count at all. A series of panes, or windows, is designed to give a broad colour effect, of which a particular shade of rich blue is the most noticeable in the examples that survive.

VAULTING

The development of vaulting is one of the most important features of the thirteenth century. The pointed arch by about the year 1200 had entirely ousted the round form in England, although not in Scotland and Ireland, and became permanently established as the most convenient method of vaulting rectangular spaces.

It should be remembered that timber vaulting in imitation of stone was often used in the latter part of the thirteenth century. This practice has been the subject of considerable controversy, but on the whole it must be condemned.

The Chapter-house at York is a good example of this construction, although it is to some extent justified here as this room is built without a central pillar, and a single-span vault over the entire building would have been a difficult business. This omission of the central pillar is very rare; indeed, so far as the writer is aware, it is unique in England.

Flying buttresses were introduced in France in the middle of the twelfth century. We do not know exactly when they were brought into England; very likely at Canterbury. They were not required in the timber roofs of the earlier periods, and were only invented to take the thrust of stone vaulting.

They were certainly used at times in connection with wood roofs. Winchester choir is a case in point; and the famous hammer-beam roof in Westminster Hall is another. The parish church at Fotheringay is an example of flying buttresses in conjunction with a church timber roof. In none of these cases are they really necessary – possibly these buildings were originally intended to be vaulted?

SPIRES

The spire of this period has certain distinct features. It rises from the square tower on which it rests without any break or parapet. This form is different from those of the later date in which a parapet of varying design is made rather important. It is known as the 'broach' (spire), although this term is not of very wide application, and will not be met with in the writings of many authorities.

CHAPTER-HOUSES

This is a peculiarly English feature in cathedral architecture and has no equivalent elsewhere. The chapter-house arose in the monasteries and its position was usually as has been described in the last chapter. Fairly early in the history of cathedral building it came to be a recognized unit in the plan of the cathedral. It was really a sort of committee room in which the governing body of the monastery or cathedral held its meetings. It still serves the same general purpose.

It is impossible to say where the first chapter-houses occurred, but it is clear that the early Cistercian monasteries included these apartments. In the earlier cathedrals the circular chapter-house was fairly common, and this developed into that special English feature, the octagonal chapter-house, which is seen at its best in Westminster, and which is indeed an entirely native and individual development of Gothic architecture.

CRYPTS

Had their origin in small burial apartments placed below the chancel. In England they are nearly all of the twelfth and thirteenth century. In many Italian examples the chancel is raised very high over the main floor and the crypt is open and arcaded towards the nave – a very attractive addition to the whole plan. In France and England the crypts are nearly always closed. It is rather doubtful if this was always so; and it has been suggested by Professor Simpson and others that the fronts in some cases were originally open and were only closed during subsequent modifications of the building. The writer is inclined to consider that this was the case, for several reasons which are too technical for discussion here.

Salisbury Cathedral is about the best example of the work of the thirteenth century. The Cistercian influence is very marked in the development of the transitional style to Early Gothic; and there is no doubt that there was a continuous French influence through this channel.

It is thought that there was an independent Early Gothic movement in the north, spreading from Ripon Cathedral, which was begun probably in 1180, but this is not certain.

The rebuilding of Canterbury Cathedral was begun in 1174 and was the main early influence which affected numerous other churches, including Lincoln Cathedral.

The rebuilding of Westminster Abbey was not until much later (in 1245), and a direct French influence was brought in again here, as much of its design was copied from Amiens and Rheims Cathedrals.

There are considered to be three main influences on the thirteenth-century style: the Canterbury school, the Cistercian school, and the Westminster school. In the writer's view all these have been rather overstressed and these fine distinctions are of little interest except to those who are making a special study of the periods. The main point is that the direct influence was French – very largely Cistercian, and that perpetual new French ideas were brought in throughout the thirteenth century, which ideas influenced development in many important directions.

ABBEYS AND CHURCHES

The development of the monastic buildings proceeded on similar general lines to that of the cathedrals, and the same broad changes occurred. There was no wide alteration of plan or general scheme, and the change that took place was mainly in detail. The pointed arch superseded the round and the vaulting altered its character as in the cathedrals; but there is nothing revolutionary in the method of planning or in the broad outline.

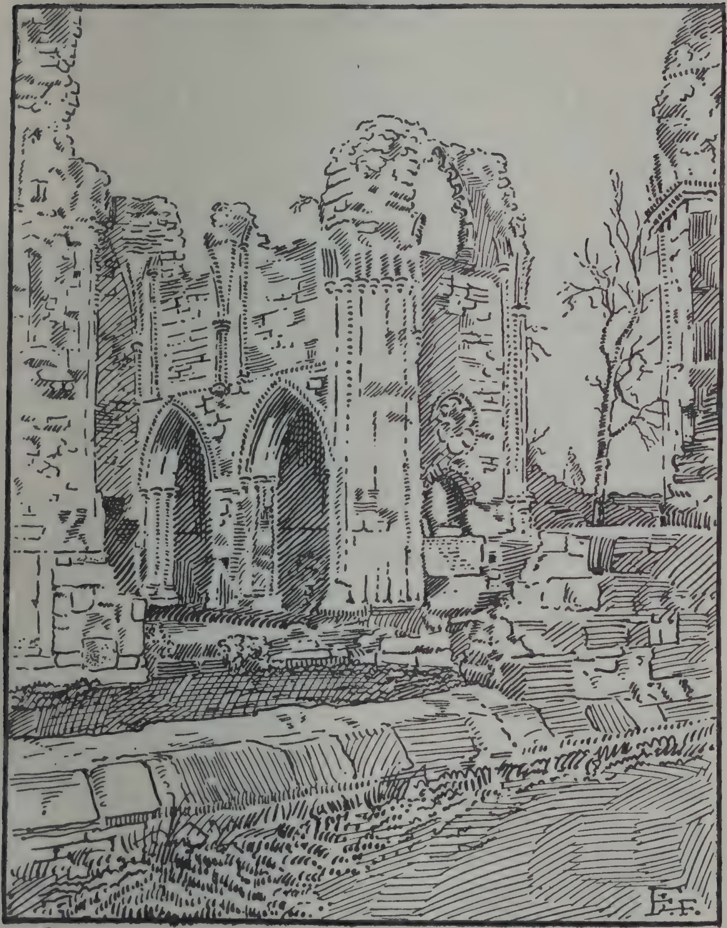
Many of the minor offices became more elaborate, and comfort was more considered in their disposition; however, one can see fairly easily that the general outlook of the designers was not different to that of the previous century.

The changes in style between the Late Norman and Early English in ecclesiastical work was, at first, more a question of an increase in engineering skill than of altered social conditions.

There was a great increase in the numbers of churches, and the parish church, as we understand the meaning of the term, really began in the thirteenth century.

MASONS

In the past it has been the practice to attribute the design of many of the cathedrals and other ecclesiastical buildings to certain bishops and other dignitaries. This view is not now held. It is fairly certain that the architect, or master craftsman and designer as he really was, was one of the body of Freemasons who did a great deal of the building of the Middle Ages. The



BAYHAM ABBEY, SUSSEX, SHOWING EARLY POINTED ARCHES.

exact constitution of this body in the thirteenth century is a matter of considerable controversy, and unless a great deal more is discovered from contemporary records, it is likely to remain so. Modern Freemasonry, however, is directly descended from the operative Freemasons of this time.

CASTLES

Although in ecclesiastical work of the thirteenth century we do not get any fundamental alteration of design from that of the twelfth – the difference is mainly in the fashion of development of detail – this by no means applies to the principles governing the design of castles during this time. Between the beginning and the end of the period a vast difference in objective and fulfilment of design took place.

Very many factors contributed to this. Among the most important of these were the lessons learnt on the Crusades from the engineers and soldiers of the Near East; the development of military conditions at home; and the increasing skill gained by experience and the importation of foreign craftsmen and in the use of materials.

Up to now the castle had consisted of a keep and two wards placed, it is true, with regard to strategic position but rather careless in the general plan. The whole thing was not very homogeneous, and had not been worked out with any real thought or logical idea of controlling defence. It was arranged with a minimum of comfort for the garrison, and was somewhat of a temporary nature – this is the impression that the observer cannot fail to gather.

As the thirteenth century progressed we get the feeling that the Norman nobles had begun to settle down; they had intermarried with the British; many of the second or third generation were equally concerned with traditions of both Norman and Saxon culture. What we can think of as the real England had begun.

From these many and complex variety of sources the social conditions, apart from the ecclesiastical, produced an important alteration in the whole outlook, and its immediate development.

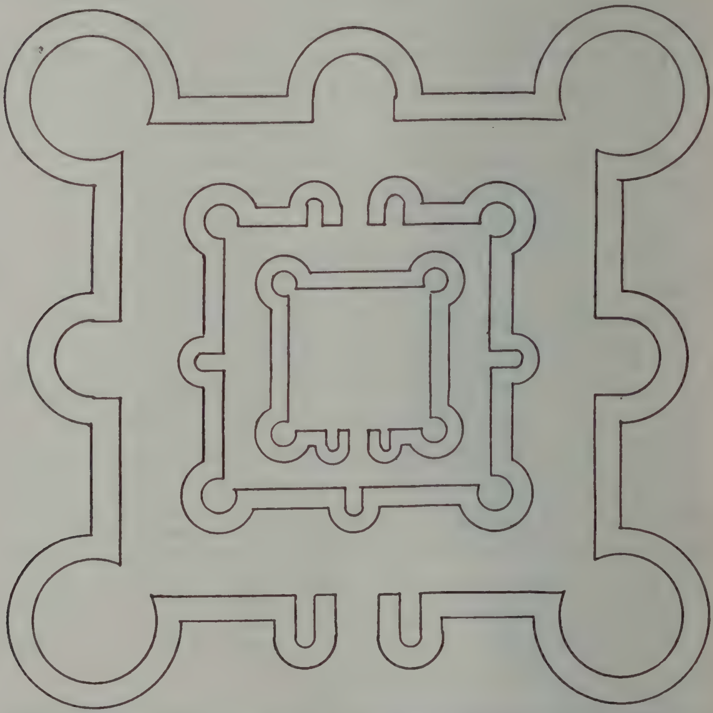
The spirit is different at the end of the thirteenth century to what it is at the beginning.

During the reign of Edward I, the castles developed very rapidly. Walls were increased in height, towers became more elaborate. Instead of the keep being the main defence with outer walls as auxiliary defences, the whole castle becomes a stronghold. Galleries were built in the curtain walls, so that archers could use loopholes in these, which greatly strengthened the defence previously carried out from the battlements. The offices were still built against the inner side of the wall of the inner ward in any convenient position.

The plan of the keep became more elaborate and its defences also.

The great change of plan occurred about the middle of the thirteenth century. This was the introduction of the concentric walls. In this type, the inner ward is entirely surrounded by the outer ward, and the keep lies in the heart of the whole fortress.

The gates in the various walls were placed as far apart as possible, hence, if the outer defence was breached, the attacking party would have to make a long passage to the next gate while under fire from the defence.



DIAGRAMMATIC PLAN OF A CONCENTRIC CASTLE, SHOWING THE GENERAL AIM OF THE DESIGN.

Note the opposed entrances in walls.

Drawbridges and portcullises became more elaborate and greatly multiplied. There were several of both in some cases. An outer defence work called the barbican was placed outside the gatehouse.

CONWAY CASTLE.

The gates were flanked by towers and gave into a passage protected by loopholes for archers in the sides, and in the roof of which were holes from which lead, boiling water, etc., could be poured on the attacking force. These holes were termed, appropriately enough, 'meurtriers,' or murderers.

A further means of defence came in early in the century, possibly even before, which was important. This was the bretasche or wooden platform hung round the summit of the towers or over entrances to protect the defenders from archers and the missiles thrown by the various types of siege engines in use at the time. These galleries or bretasches must not be confused with the towers or keeps of the Early Norman castles, also known by this name.

These galleries were supported by heavy timbers let into the walls and struts resting on corbels. They were roofed and loopholed, and had holes in the floor through which the usual missiles could be dropped into the attacking force engaged in battering or mining the walls below.

Sometimes these bretasches were constructed in a double tier, in which case the top one projected beyond the lower. It is doubtful if these platforms were permanent or if they were only erected during a siege. Certain writers have laid down the latter system as being universal, but this cannot be accepted with certainty, and in some cases they may have been of a permanent nature. In the writer's view they probably were.

During the latter half of the thirteenth century the timber structure was replaced by a machicoulis, or stone gallery, carried on corbels and with loopholes, as in the bretasche. It was sometimes roofed.

The term machicoulis, or machicolation, has been used most loosely in the past. It is sometimes used to describe the corbels that carry the parapet, sometimes in reference to the holes in the floor of the overhanging gallery through which lead, etc., was dropped, and sometimes in reference to the whole projecting gallery. The last is the reasonable definition and the term should be used in this comprehensive sense. The term 'aluye' is sometimes given to the actual covered gallery inside the machicoulis – but it is doubtful if this special application was ever used in mediæval times. Aluye really means a walk.

Battlements proper were nearly always used and became more elaborate, with certain refinements tending to a greater efficiency in defence. The merlon, which is the wall-space between the embrasures of the battlements, become more of a feature in itself, and instead of using the embrasures to shoot through, the merlons were pierced with openings called oillets. It is obviously a far better arrangement than the early form of battlements and gives much greater protection.

The whole process of refinement continued throughout this time, and the end of the century, or the beginning of the fourteenth, may be regarded as the culminating point of castle building in England, although, of course, numerous castles were built subsequent to that date.

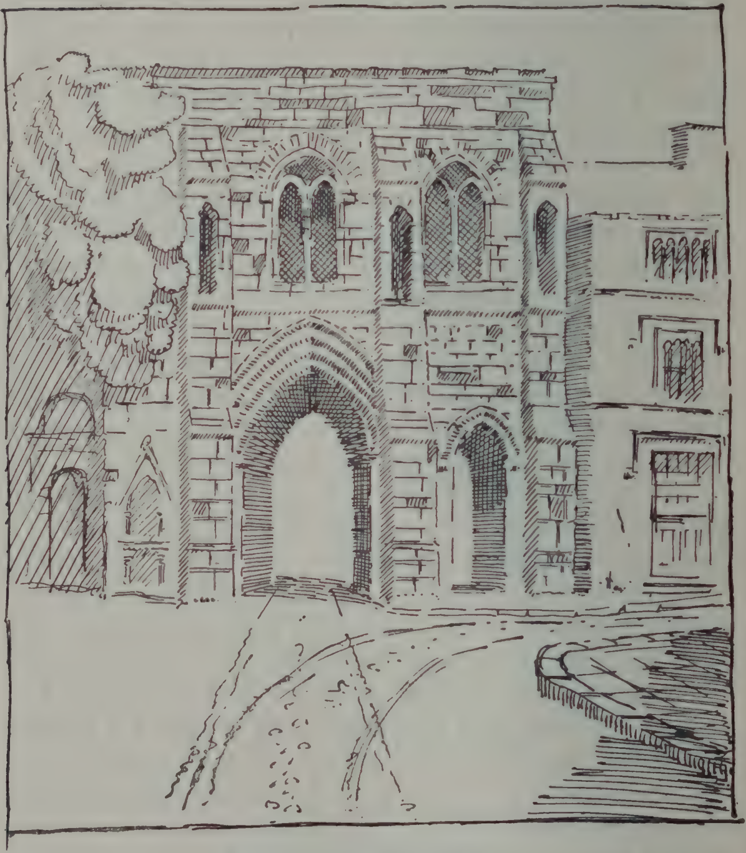
EDINBURGH CASTLE.

THE HALLS: PLAN

THE HALLS

In the previous chapter attention has been drawn to the fact that manor-houses and granges existed side by side with the fortified castles. These had, no doubt, been a development from the Anglo-Saxon wooden house. It is not very clear when the name hall came to be applied to these non-fortified houses of the nobles, but it is often given to the houses as far back as Saxon times; and has been used very carelessly by writers of all dates. In fact, the word really means little more than house; and manor-houses were often called halls on account of the importance of the apartment from which the name derives. Colleges and dining-rooms at different times were called halls. The term is an indefinite one and must be considered in its special application when met in architectural history.

No house of this period remains as it was built, but quite sufficient evidence has been produced to make a reasonably accurate restoration, on paper, of certain halls at the end of the century. The main rooms are on the first floor as in the castle, and entrance is gained by a flight of steps leading direct into the hall, which is a lofty room possibly 35 or 40 feet long by 20 or 25 feet wide. The hall had no rooms over and had a timber roof. On one side lay the kitchen with a bedroom over it, probably approached by a ladder at this time. On the opposite side of the hall to the kitchen was the solar, which was the private room of the owner, where he slept and which he used for any private purpose. Beyond the solar lay an apartment used for washing purposes, etc. Baths are generally said to have come into



WESTGATE, WINCHESTER.

use in the reign of Edward I, but it is impossible to suppose that they had not been used long before this.

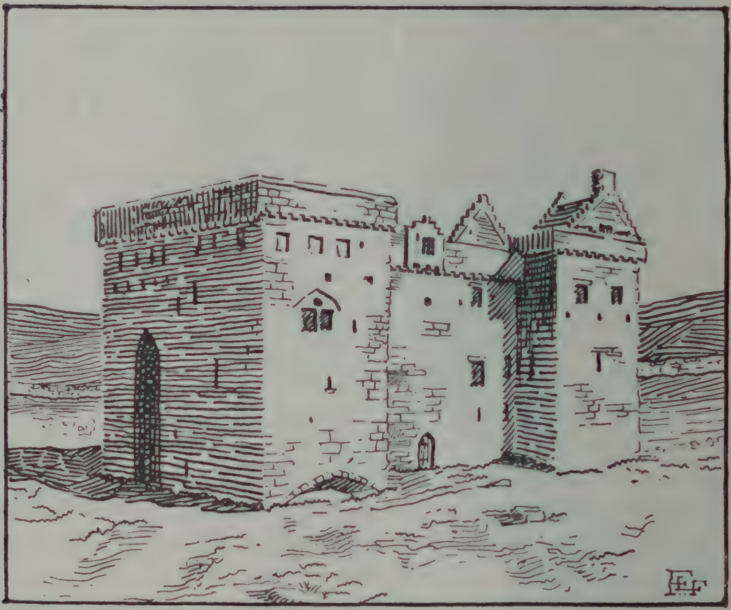
Part of the solar seems to have been used sometimes as a chapel, and probably most important houses of the time incorporated such an arrangement. The basement contained the servants' quarters and storerooms, etc., and these quarters must have been pretty rough. The general architectural detail, such as the shape of the windows, etc., followed that of the ecclesiastical buildings of the time.

Although these halls are referred to above as non-fortified, it must not be inferred from this that they stood unprotected in open grounds as did those of the sixteenth and subsequent centuries. These halls had an inner bailey surrounded by a battlemented wall, and in many cases (probably in all) had an outer bailey also in which the farm buildings, stables, etc., were situated.

These defences, however, were on a much less scale than those of the castle, and were not intended to stand a siege in any shape or form. They were for the purpose of protection against robbers and outlaws or castle raiders; and possibly to gain some privacy, like the demesne wall in later times.

The inner bailey, no doubt, served the purpose of the later garden and lawn, and provided a safe and convenient playground for children, and a pleasant place for the ladies of the household to sit in during summer.

The placing of the main rooms on the first floor was due to several causes. It would have been partly for defence, partly for dryness, and partly to avoid undue spreading out of the plan. Also it was no doubt to some extent influenced by the arrangement of the castles of the time. Fashions in such matters are apt to become very strong, as is instanced by the common but quite unnecessary basement kitchen and offices in the country house of the eighteenth century.



HERMITAGE CASTLE, LIDDERDALE.

Certain of the colleges of Oxford and Cambridge were founded at this time; here again the hall is the main feature. The position of the fire-place in the hall, whether of castle, house or other building of the time, still remains central in most cases, although wall examples do exist of contemporary date.

BIRLING CHURCH.

LEEDS CASTLE.

Glass in the windows had come into fairly common use in important rooms, but it was by no means universal. The general internal wall treatment was with rather thin plaster, and this was coloured freely in simple geometric patterns. The whole effect of these great halls was bright and gay; and owing to the simplicity of the furniture and its small quantity, they had a dignity rarely achieved nowadays.

The roofs, nearly always of oak, were getting more elaborate, and greatly helped in the general effect of the whole design.

Tapestries and similar hangings were used to a large extent.

COLLEGES

Although both Oxford and Cambridge existed as universities prior to this period, the earliest colleges were founded in the thirteenth century. At Oxford University, Balliol and Merton were all built about the middle of the century, and Peterhouse at Cambridge a little later, in the third quarter.

The main features of these colleges were the halls, as in the houses of the period, and those that remain today give us a clear idea of the general treatment of the detail of the time.

It should be emphasized that the hall was roofed independently of the other apartments, and while on plan the lesser rooms are joined to it, yet externally it appears as a more or less separate building, with subsidiary buildings grouped round and against it. The general plan of the house indicated here is typical of the thirteenth century, and while, no doubt, many more elaborate existed, this arrangement as described can be regarded as common in the better houses of the nobles. This type in which the hall is the heart or key of the whole plan continued in its main arrangement up to the time of the Renaissance.

The thirteenth century shows a great advance over the twelfth in design, construction and general idea of planning in regard to the amenities and standard and living.

MATERIALS

The use of stone was still largely confined to the type as found locally. This accounts to a considerable extent for modification of detail in different parts of the country; as has been pointed out in the introductory chapter.

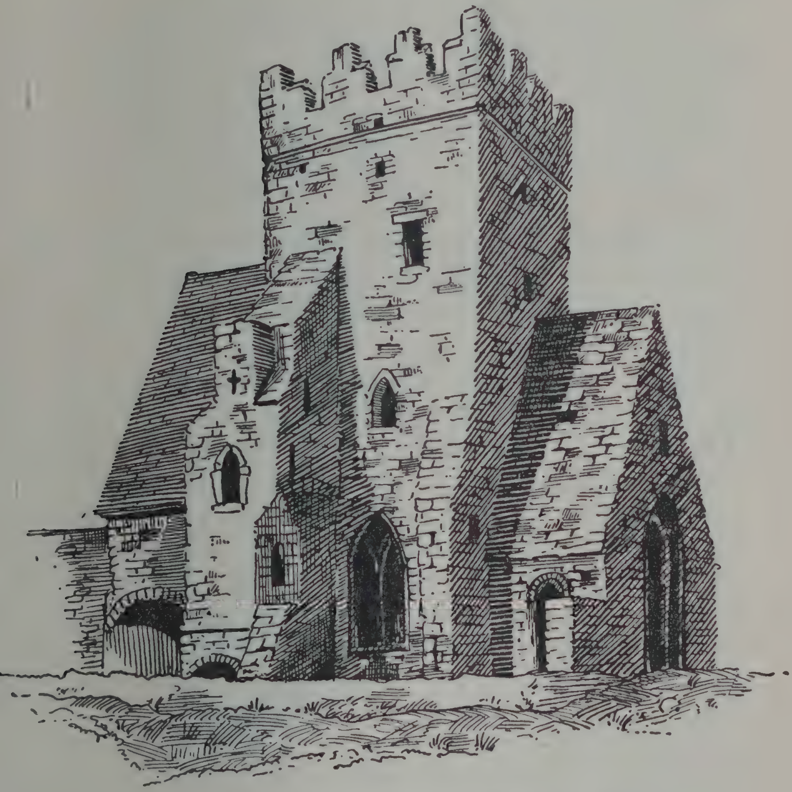
Brick, as used in modern building, came into fairly general use at the end of the thirteenth century. There is no evidence that it had completely died out after the Roman evacuation, but there is also little to suggest its use between then and mediæval times. Little Wenham Hall, in Sussex, is usually quoted as one of the best of early brick building. There are, in fact, many more scattered about the country, but probably none where the remains are so complete. This hall was erected in the latter half of the thirteenth century. The Normans used brick at times in their buildings. Such bricks seem to have been taken from Roman remains. There is no evidence that they were ever made by the Normans.

IRELAND AND SCOTLAND

The Irish and Scottish work of the time does not call for much comment.

CANTERBURY CATH FROM THE S.E.
WMM

In Ireland, indeed, very few, if any, churches were built outside the pale. The monastic system seems to have proved adequate for all needs, and the parish church did not come into being until later.



SAINT DOLOUGH'S CHURCH, CO., DUBLIN.

Such work of the time as exists, outside England and

Wales, is nothing like so important as that within. This applies to all buildings, including cathedrals, castles and houses of the time.

The broad development followed on the same lines as Early English Gothic; and in many cases the work was done by English masons. Certain buildings suggest European influence other than English, but these are more of interest to students of the particular period than to readers who are concerned with the subject as a whole.

Generally speaking, the work remote from the important British centres followed the same lines as in those centres; a little later in date, and a little rougher in design and craftsmanship.

One or two Scots buildings, however, are of sufficient special importance as to demand a brief description. They stand out as rather arresting among their British contemporaries.

In Melrose Cathedral we find certain interesting and individual methods of dealing with the plan and general design, which are certainly derived from a source other than English. For instance, the whole of the south side of the nave is bounded by chapels, which is very definitely un-English, and following the French plan of the time and of slightly previous date.

Some of the tracery in the windows is quite French in feeling. It is pretty clear from these and other minor points that a French architect, or master mason, had a say in the design, if indeed the whole plan is not of Northern French origin.

Glasgow (where, indeed, one does not now look for any romantic quality) also presents in certain parts of its cathedral some most interesting and unique developments; or perhaps it would be more correct to say phases of development.

The cathedral has, for one thing, the most remarkable crypt in the British Isles – if not in Europe. It was built late in the thirteenth century. Ferguson refers to it as 'the perfected style of the thirteenth century,' and one of the most perfect pieces of architecture in these islands.

On account of the steep slope of the ground at the east end of the church, the extra light of this crypt as compared with others on a level site was easily attained and is of great importance in the whole plan. This same factor also made the arrangement of the windows very satisfactory: consequently the lighting is excellent, and quite superior to any English crypt. One may not quite agree with Ferguson's extreme eulogy; but it is certainly a very beautiful piece of Gothic architecture.

CHAPTER SIX

Gothic

THE FOURTEENTH CENTURY

THE beginning of the fourteenth century seemed to hold out hopes of prosperity and social advance. Edward I had ruled well and wisely and had subdued the unruly elements to an extent hitherto unknown. Wales had been annexed, the House of Commons had been firmly established, and the function and jurisdiction of the different courts of law had been defined. Yet, in spite of this outlook, the fourteenth century was in fact one of great unrest and distress.

The power of the Church was waning, and the monks had become less energetic – more worldly; and extremely wealthy monasteries were the general rule.

Edward II was a frivolous and incompetent king. He came to the throne in 1307 and immediately became extremely unpopular. He was the exact opposite of Edward I in character, and was quite unfitted for his task. The success of Robert Bruce against the English forces, culminating in the Battle of Bannockburn in 1314, secured the independence of Scotland. In the following year came a famine which greatly added to the discontent; and eventually the nobles revolted. Queen Isabella, who had gone to France on a military mission, collected an army and landed in England with the idea of protecting her son, afterwards Edward III, from his father's extravagance and misrule. The king fled to the west, and his favourites the De Spensers were hanged. The king was made a prisoner in Kenilworth

GOTHIC DEVELOPMENT

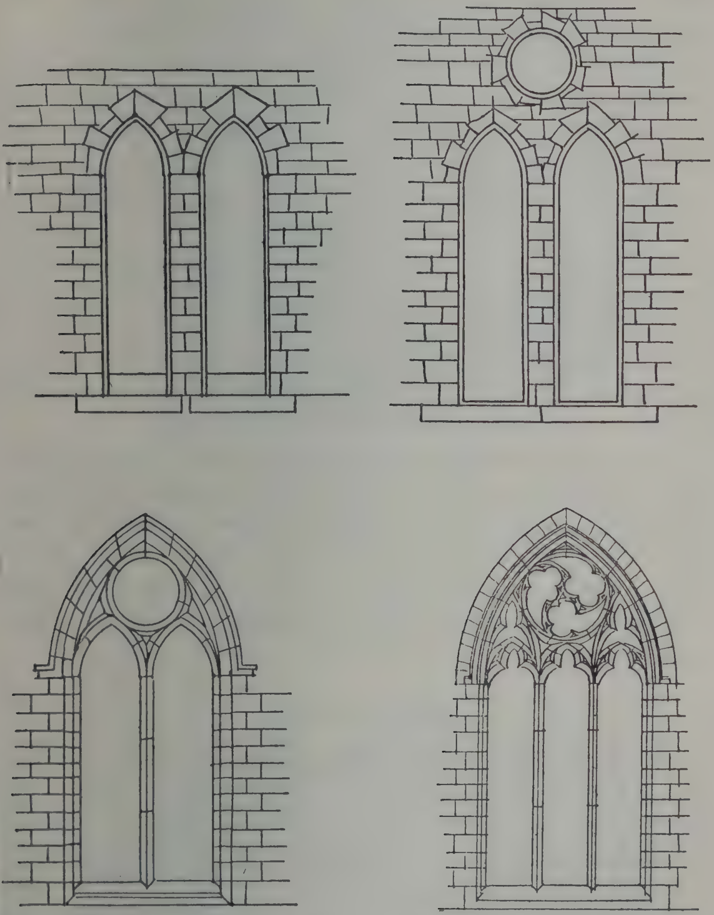


DIAGRAM SHOWING THE DEVELOPMENT OF TRACERY FROM EARLY TO LATE GOTHIC.

Castle and forced to abdicate in favour of his son. He was subsequently murdered in Berkeley Castle.

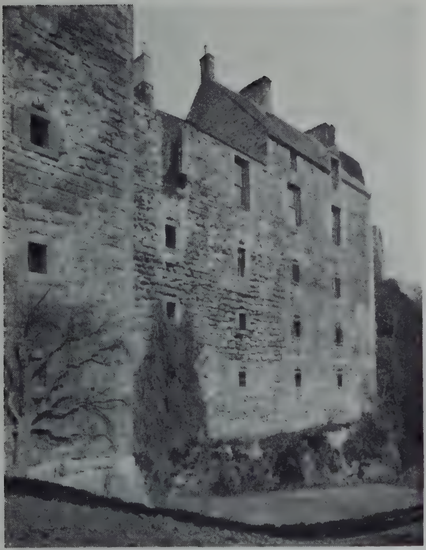
Edward III, while in many ways efficient and successful, attended too much to foreign affairs and did not concentrate sufficiently on those at home. The Hundred Years' War with France started in 1338, and naturally did not help social development in England. The end of the century saw Wat Tyler's rebellion, chiefly brought about by taxes imposed to pay for the lingering war with France. The Black Death in 1348–9 was a further trouble.

The whole century was a period of turmoil, and it is rather wonderful that architecture carried on as well as it did.

It is clear that fourteenth-century work, more especially ecclesiastical work, is less vital than that of the two preceding centuries. A certain vigorous quality had been lost; and the work of the time, while more skilful from a purely constructive point of view, was lacking in that great spiritual quality that makes fine architecture.

ECCLESIASTICAL

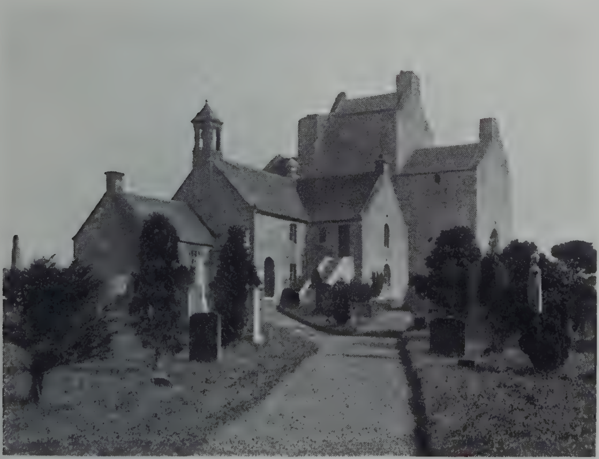
In the history of the development of church buildings we must again consider the social conditions. The abbeys and cathedrals were sufficient at this time to meet the contemporary demands. No fresh buildings were required. The parish church was a different case, and the need for these was an ever-increasing one. Consequently, in the fourteenth century, we get many parish churches erected, which eclipsed those of the previous centuries both in size and number.



[*Photo by Valentine & Sons.*

ROSSLYN CASTLE.

Commenced 1304. Note how primitive is the general quality in comparison with English examples of similar date.



[*Photo by Valentine & Sons.*

TORPLUCEN CHURCH, LINLITHGOWSHIRE.

No cathedrals were begun after about 1300; although many existing prior to that date were altered at this time. Indeed in a few cases – as Exeter in the fourteenth century, and York and Winchester in the fifteenth century – the rebuilding was so complete that it almost produced a new structure.

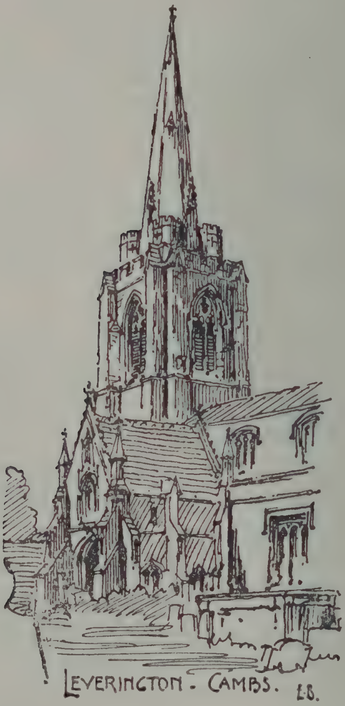
There is an interesting side of rebuilding, or early type of restoration, which has not, as yet, been properly explained.

One must notice a certain broad line of treatment in what is called restoration. Up to the end of the thirteenth century addition had followed the original style. Both plan and detail as first expressed had been adhered to.

During the fourteenth century – and much later – the original work seems to have been ignored; and the style prevailing at the moment was nearly always used for additions. It is difficult to account for this; and it might be worked out as a special study of outlook of the architects of the later mediæval or Early Renaissance times. So far it has not been adequately accounted for. Curiously enough a few exceptions stand out most vigorously; and show us that some designers (concerning most of whom we know nothing) really did seem to think of what they were doing, and to have some respect for the work to which they were adding.

In the rebuilding of Westminster Abbey about 1350, the new nave followed the old choir very closely, although there are many differences of detail. The shafts of the column, for instance, are attached, not detached as are the older ones. The bands which tie the shafts to the columns although not needed are retained, and most authorities consider this justified as it makes a harmonious whole.

The writer is in full agreement with this view.


LEVERINGTON - CAMBS. E.B.

Among the building of any period certain freaks occur. Some of these are merely foolish, but some are interesting as showing a satisfactory solution of an uncommon or difficult problem. One of the best known of these unusual methods of treatment is the famous lantern at

Ely Cathedral. Early in the century the old Norman tower, which was over the crossing, collapsed. It was decided on account of difficulties in connection with the foundations, and for other reasons, not to rebuild it. A design was prepared, according to repute by one Allan of Walsingham, for an enormous lantern to cover the crossing. This was carried out and this octagonal lantern, nearly seventy feet across, is still in good order.

The lantern is made of wood covered externally with lead. The vaulting of the roof is also of wood in this case.

This very ingenious and unique way of covering the crossing is very successful both in construction and appearance, and the designer, whoever he was, must be given the greatest credit for finding so satisfactory a solution to a most difficult problem.

The Decorated style is a direct growth from the Early English. The main feature, as is implied by the name, is the great development of applied decoration.

An important difference between this and the previous style is the notable increase in lighting facilities given by the enlargement of the clerestory at the expense of the triforium.

LIERNE VAULTS

Vaulting is greatly elaborated and becomes more than ever one of the most important internal features. The arrangement of the ribs is often most complex and ingenious.

The vaults of this time are often of what is called the 'lierne' type. The main ribs follow the previous arrangement of design, and the construction is much the same as in the Early English form. The vault is simply a pointed tunnel intersected by others at right angles to it. Small extra ribs, however, are now added to stiffen the vault at its weak point – near the top. The name derives from 'lier,' to bind; and these little additional ribs do in fact bind the main ribs, and help the general construction. In the writer's view they certainly do not help the appearance, and are bad as an assistance to the main lines which they break up in a rather fussy and unpleasant way. In a drawing they seem satisfactory enough, but in fact seen in the rapidly vanishing perspective of an aisle vault they serve only to break up the pleasant sweep of the main lines: they spoil the symmetry and dignity. They are not necessary for construction, and while ingenious as a feat of engineering, are, on the whole, detrimental. This view is contrary to that given by most writers on this period, who seemed to have formed a conspiracy to applaud this detail of engineering skill.

At the intersection of these ribs bosses are constructed which at this time were often elaborately carved.

Norwich is perhaps the most interesting example of this particular phase. In the nave are over three hundred bosses sculptured in considerable detail with various Biblical incidents beginning with the Creation. The final boss depicts the Last Judgment, and is realistic in its suggestion of the treatment which the carver considered was going to be meted out to those who had led sinful lives.

This intense concentration on detail that we find in the Decorated and later Gothic period is interesting enough as archæology or history. It must be remembered, however, that much of this detail is placed very high, is difficult to see, and is often badly lighted. The tendency is rather to detract from the motive of the main design, and the monumental quality of the building as a whole, consequently, suffers.

In the writer's view this constant overloading with detail is bad design, no matter how spirited is the execution. All Gothic work, except in the earliest phases, suffers from this defect. This question is discussed in the last chapter.

PLAN

The general disposition of the plan remained much as formerly. If any change occurred it was towards a widening of the bays, and an increase in height of the main parts. As against this the tendency of both door and window openings was rather towards a decrease in height.

WINDOWS

Windows began to get wider and mullions came into use; at first dividing the windows into two, and later into three or more, lights. The primitive type of grouped lights, as under the Early English, developed into simple bar tracery, at first geometric in character, but subsequently free, or what is generally described as 'flowing.' The diagram illustrating the general development of Gothic windows shows this process very clearly. The design of arches is generally lower and

KENILWORTH CH.

flatter than previously, a refinement which was necessary to allow for the elaboration of tracery.

The tracery showed two distinct tendencies during the Decorated stage. In its first movement, as has been noted, it grew flowing and very elaborate. Towards the end of the century its tendency was more towards formality, and vertical lines began to wipe out the curvilinear design. This was the beginning of the transition which led up to the Perpendicular of the next century.

Doorways have a new feature in the use of engaged shafts. These are joined on to the main stones of the jambs, whose jointing they usually follow, and carry the arch moulds overhead.

BUTTRESSES

Buttresses began to get more elaborate, and at the end of the period niches and canopies were much used. The tracery of the windows began to overflow on to the walls, but this treatment did not mature until the following century.

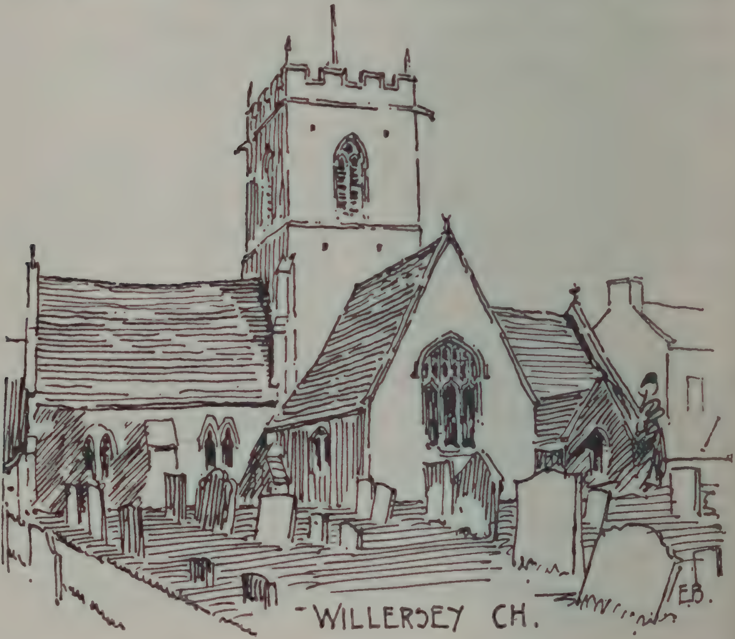
Parapets are usually battlemented, although cases occur where the French treatment of pierced parapets filled with tracery are used. This is not, however, characteristic.

CARVING

Decoration and mouldings were elaborated, and certain details such as the ball flower were greatly employed in the latter. The use of foliage is free and naturalistic, and vine, oak, ivy, and other leaves are typical features of the carving at this time.

Piers and columns generally had small attached shafts, a better form of construction than the detached shafts of the Early English.

The ends of dripstones or labels, in the earlier stages plain, were commonly carved into heads either human or grotesque. Cornices and strings were generally carved, often very elaborately. Bases of walls are emphasized by heavily moulded strings: a most successful and attractive feature of this period.



A very important development is the growth in the use of coloured glass. The better work that became possible as the technical side of glass manufacture improved, demanded more display, which led directly to the increase in the size of windows referred to previously. The character altered with increased skill in technique, though whether the design of the building as a whole gained by this improvement is a complicated question. The pieces became larger, and design became more pictorial, and less a unit of the whole building. The general decorative effect of the earlier broad colour schemes was lost. It is easy to see that the specialist had come in, and the building as a whole suffered.

This frantic specialization was carried to an absurd point (as it is at the present day), and the architect's scheme was often killed by the exuberance of his craftsmen. This whole question of the control of design is dealt with in the last chapter.

COLLEGES AND SCHOOLS

Queen's and New Colleges, Oxford, were founded in this period, and also Winchester School. Their original architecture, of course, followed the ecclesiastical of the period, and consequently is not here discussed.

EXAMPLES OF DECORATED PERIOD

Some of the principal examples are the Dutch Church at Austin Friars, the South Cloisters at Westminster Abbey, the Choir of Lincoln, and the Chapter-houses, York and Wells.

There is nothing outside England of the style of much importance, or comparable to those churches built in Britain.

ABBEYS AND MONASTERIES

Their tendency of design was similar to that of the cathedrals and churches; and its development and characteristics do not call for special comment.

CASTLES

Very few castles of the sort described in the previous chapters were built after the end of the thirteenth century. The decline of the castle proper has been generally attributed to the invention of gunpowder, but in fact this had very little to do with it. Gunpowder was used in England during the second quarter of the fourteenth century; the first date which seems to be certain was in 1327, when it was employed against the Scots. The early cannon were of small and light pattern, and were of little use against solid masonry walling. They were not to be compared to the great trebuchets, and other engines, which were able to hurl a missile of two or three hundredweights many hundreds of yards.

The real causes of the cessation in castle building were social. Largely owing to the laws of Edward I's reign, Feudalism was rapidly declining. One of the laws, perhaps the most important in causing this change, was the Statute of Quia Emptores. This allowed land to be sold, and the practice of paying rent to the nobles by service rapidly decayed.

The power of the King at the beginning of the fourteenth century had materially increased. The baronial castles were becoming useless, as the individual baron was powerless against the overwhelmingly greater power of the Crown. This was largely due to the development of the English archer (by far the most efficient arm of the time), which was entirely organized and controlled by the Crown.

Numerous other minor causes operated to render the castle obsolete, but it would take up too much space to speak of these here.

The main considerations, however, can be summed up as: first, the immensely superior forces of the Crown; also the fact that the castles had come to be associated with the keeping down of the people, and as a force hostile to the law of the land as laid down by the King and his parliament; further, the castle had become a refuge for the criminal and outlaw, and had got into disrepute, on this account, among those of lawful vision.

The whole objective of the castle was becoming obsolete and antagonistic to the general understanding of the law as laid down by Edward I.

The reason for the existence of the castle had gone. Consequently the castle itself, if it did not entirely pass away, changed its nature. Those existing at the time were often altered in plan and general arrangement, in which strength of fortification was sacrificed to a higher standard of comfort and amenity.

If anyone doubts that social reasons caused the abandonment of the idea of the fortified castle, and still believes in the old view that the use of gunpowder was the main cause, he would be well advised to study the history of the Civil War of the seventeenth century. During this upheaval the newest castle which was used strategically was two hundred years old at least. If it was only that age, indeed, it had not been originally built for purpose of defence as its main object. Yet the records show that these old buildings showed a capability of withstanding a siege, or temporary forced attack, in a way which calls forth our wonder and admiration. Even at this later date cannon had not caught up with the defences of the older military engineers.

Let us take two concrete cases in support of this view – dozens might be named, but these are typical examples:

At the siege of Pontefract Castle in 1644 cannon which were capable of firing a shot of about forty pounds were used. It is recorded that somewhere about 1,500 shot were fired at the defences – yet the siege failed because these projectiles did not have any material effect on the walls and keep.

Scarborough Castle, at the same date, rather ill-contrived on plan, and in the writer's view most difficult to defend successfully, withstood a twelve months' siege although ill-equipped with both ammunition and food, and with an entirely inadequate garrison.

Such examples can be studied from innumerable records. The evidence is perfectly clear that it was social and not mechanical conditions that caused the beginning of the transition from the castle into the house – mansion or palace – of later days.

It may be thought that this point has been too much stressed here, but it is felt by the writer that it is such an important step in the history of domestic architecture it must be rather fully dealt with.

In the few castles that were built during the fourteenth century it is obvious that ideas of comfort were

CARNARVON CASTLE.

being regarded as of more and more importance. The design modified very rapidly.

Further revolutionary features appeared. Brick as the main walling material became the rule. Much better arranged rooms were introduced; and towards the end of the century more elaborate ceilings, and large windows with tracery. These were more fully developed in the fifteenth-century castellated mansion,

BODIAM CASTLE, SUSSEX: LATE FOURTEENTH CENTURY.

which is dealt with in the next chapter. It will make the history of the castle more clear if we analyse the principal features of the plan of one of this period. Bodiam Castle, built by Sir Edward Dalgngrage or Dalgngregge about 1386, is perhaps the finest example of its time. It has been much described, and is the subject of many monographs and papers; yet it remains interesting and of a singular fascination to both architect and amateur.

Its builder had served in the foreign wars in both France and Spain, and, no doubt, many ideas worked into the plan were of French origin.

Bodiam is a square building with a central courtyard. It is entirely surrounded by water (being built in a lake) but it has no baileys or outer walls. It is essentially the comfortable country residence of a noble. Defence is not the main consideration; although arrangements for this purpose are by no means negligible.

The moat was traversed by a timber causeway, with a right angle turn at the castle end; which was planned in order to stop a rush by a besieging party. Parts of this causeway, it is believed, were drawbridges. Outside the main gateway was the barbican, a machicolated structure, ingeniously designed to cause the maximum of discomfort to any attacking force. Between this outer line of defence and the main gate lay another drawbridge.

The whole of the battlements, both in the main building and the barbican, are so arranged that the causeway and main approach are under direct fire from the archers placed on these points.

The gatehouse is a most ingeniously planned second line of defence. It contained three portcullises and staircases arranged with easily defended doors, so designed that the garrison could retreat with little loss, and control the attack through loopholes and meurtriers, which have been described in the last chapter.

Even if the courtyard was gained by an attacking party they were in a bad case; as the internal towers and battlements commanded the whole of the open space, and archers could find easy targets in any force which had gained this position.

Inside the castle the arrangement is very similar, allowing for the difference in the main plan, to the house of the period; and indeed to the hall of the previous century.

The relationship of the hall, solar, kitchen, etc., were as in the house. This wing of the castle occupied the side of the square opposite to the main gateway.

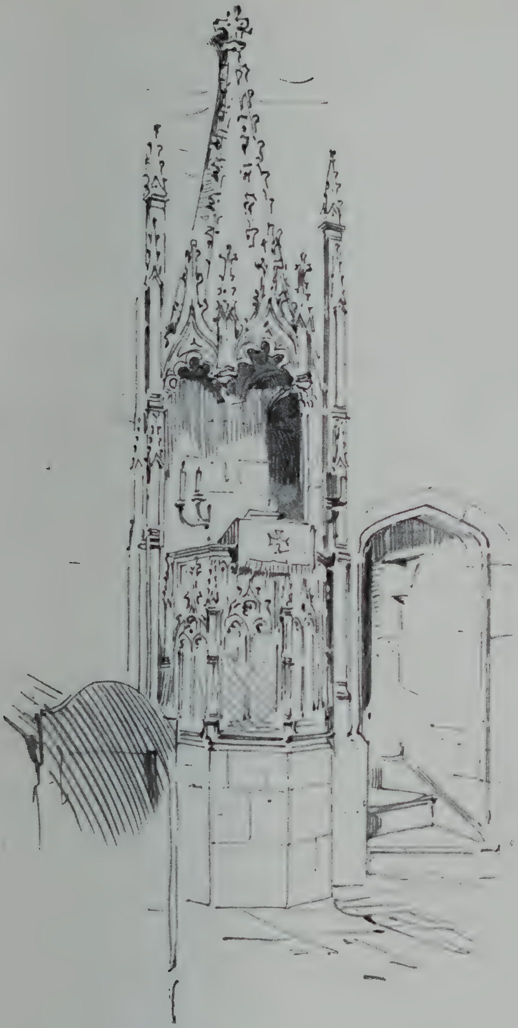
CAERLAVEROCK CASTLE, DUMFRIESSHIRE: LATE FOURTEENTH OR EARLY FIFTEENTH CENTURY.

Sherburn Castle, built rather earlier than Bodiam, is of the same type, and Wressle, in Yorkshire, of which very little remains, was built also on this plan.

These fourteenth-century castles are sometimes known as 'quadrangular castles,' and this type, while rare, is peculiar to this period. It is not very clear why this radical change in plan suddenly came about – anyone who is interested in this study must go to one of the special books on the period for more full suggestions – but it is probably due to French influence, and experience of castles gained during the war with that country. The moat is the main defensive feature, and the plan in its broad lines seems to be taken from buildings of slightly earlier date, the best examples of which were built in Gascony.

This plan must be considered in some detail if an understanding of the life of an important family of this time is to be arrived at. According to modern ideas the arrangement was certainly simple, but the lay-out indicates, clearly, that two important factors had been realized – so far as we know for the first time in Western Europe, certainly in Britain. These were, privacy and a regard for the comfort of all the household – family, servants and guests.

A far better accommodation was now provided for the men-at-arms than was the case previously; and the chapel and priest's room were decent apartments with separate access to the courtyard. The staircases were still of the spiral type, but there were many more than in the castles of the previous century, and access to the various floors was much more convenient than previously. The hall and solar, as has been mentioned, occupied the most important position and had their own staircase leading to the important sleeping rooms for the family. The kitchen and its offices were placed close to the hall and in the same side of the square, and servants' bedrooms were arranged in the same part of the



COLD ASHTON PULPIT.

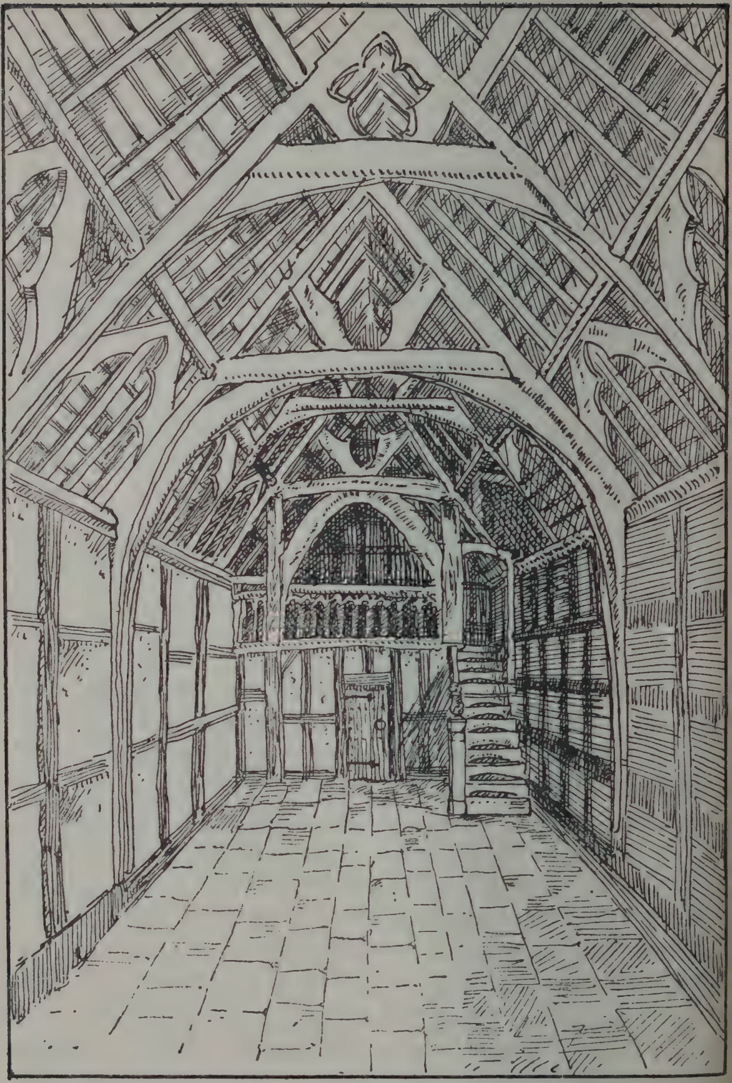
block. Bodiam and other castles of the time provide for a separate entrance with causeway and drawbridge from this wing – or side is the more proper name – of the castle, presumably for the use of the family. This second entrance may have had strategic reasons also; but here we come into the realm of guesswork. At this time, in the quadrangular castle, the kitchen for the garrison was separated from that of the owner; although these two kitchens seem, as is natural, to have been in close proximity.

As in the house of the period, the main apartments were now placed on the ground floor, although indeed this was frequently raised high over the ground level.

The reasons for this defensive position of the hall had disappeared, and it became unnecessary to place the main rooms on a higher level for the purpose of resisting attack.

THE HOUSE

There is no distinction between the house and the hall, but the former word seems to have been in general use over a long period, in relation to those unfortified buildings erected in the fourteenth century; therefore an accepted tradition is followed, although it should be borne in mind that there is no strong line of demarcation between the thirteenth century domestic building and one of the fourteenth century. The main line of distinction lies, perhaps, in the fact that the insignificant fortifications obtaining in this class of building in the middle of the thirteenth century had practically disappeared by the end of the fourteenth century. While he external features, the general plan, and details of



LOWER BROCKHAMPTON, HEREFORD. FOURTEENTH CENTURY.

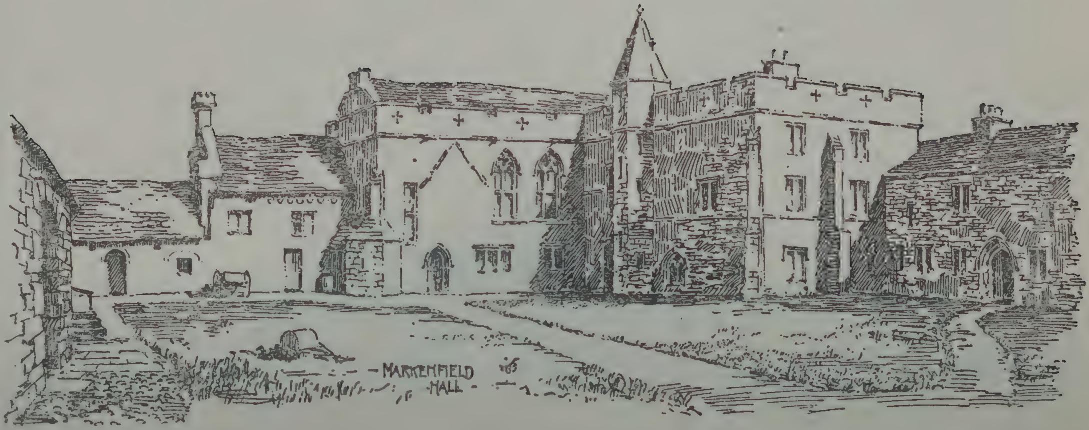
architecture followed those of the time of church and castle, the idea of defence had gradually been discarded: an important consideration, showing the rapid process towards national tranquillity and social settlement that took place during this time. Despite the violent economic unrest and social disturbance, the country districts had become more settled, and the defence of the private house of the more important class was becoming rapidly of less and less importance. That special phase of country life, associated with the eighteenth and nineteenth centuries, had its roots here.

The house of the fourteenth century shows some rather interesting alterations and refinements as compared to that of the previous century. The main plan was similar, but it can be seen that, as in the castles, comfort was being more studied. The front was still occupied with a courtyard used for domestic purposes and surrounded by stables, cow-houses, piggeries, and other buildings of the sort. There was a gatehouse, usually facing the main doorway, which was of more or less importance according to the status of the noble, or the local fashion.

At the back lay the kitchen court (the back yard) in which the brewery and bakehouse were situated.

The whole structure was encircled by a moat or wall, generally not important, and suggesting a minor type of defence that had become conventionalized. It added dignity rather than strength. These things, even at that time, were beginning to become a question of convention rather than necessity.

The plan and use of the hall is interesting. It can be read very easily. Although many earlier stages in our



MARKENFIELD HALL, YORKS.

architecture are obscure, the reasons for the developments that occurred from now on are pretty easy to understand.

The dais was still raised above the main floor level as in earlier times, and on this stood the high table (a term still in use in some of the more conservative and highly respected institutions). This piece of furniture was graced in important examples by seats with carved backs, and with tapestries. The other tables, for less important guests, members of the family, and retainers, were placed in the main body of the hall, and parallel to its sides.

The fire-place was still usually central as in the castles; the windows were much larger than in those of the previous century, and in many cases came down almost to the floor line.

The roof was still of much the same design as formerly and consisted of timber rafters carried by heavy beams, all of which were exposed. There was no ceiling. The braces grew more elaborate and had a general tendency to follow the shape of the pointed window heads of the period. This fashion was bad construction, although it has received a good deal of praise.

The houses of this time were of brick, stone, timber, and brick filling, or what is generally called 'half timber.' In certain districts, such as Lancashire and Cheshire, half-timbering was the most usual method.

The plan had been more pulled together and the external effect was becoming less like a series of independent apartments than was that of the thirteenth century. The general effect, especially in the stone houses, was church-like. The details of windows, doors, roof and parapet were similar to those of the contemporary ecclesiastical buildings. There was, as yet, no distinction between the general style and detail of church and domestic architecture.

CHAPTER SEVEN

Gothic

THE FIFTEENTH CENTURY

THIS period is rather important, as the general development was affected in a special way. England became more isolated, and architecture had little influence from outside sources. Henry V renewed the war with France in an attempt to avoid civil war in England, and more for this purpose than to fight France for any proper cause. After a most intricate series of political and military manœuvres, he died in 1422, leaving the thrones of England and France to his infant son, Henry VI. Various complications, as is to be expected, occurred, and all sorts of social and political intrigues took place, which culminated in the expulsion of the English from France; and by the middle of the century no territory in France remained under the English throne except Calais.

The movements of kings and governments may or may not be very important. At this time they were important as regards architecture, as this relationship with France affected English building. It cut off French influence, and during the fifteenth century architecture in England proceeded on its own lines, and almost entirely without any external sources of inspiration.

Let us see then what happened in the growth of our native building under these conditions.

ECCLESIASTICAL

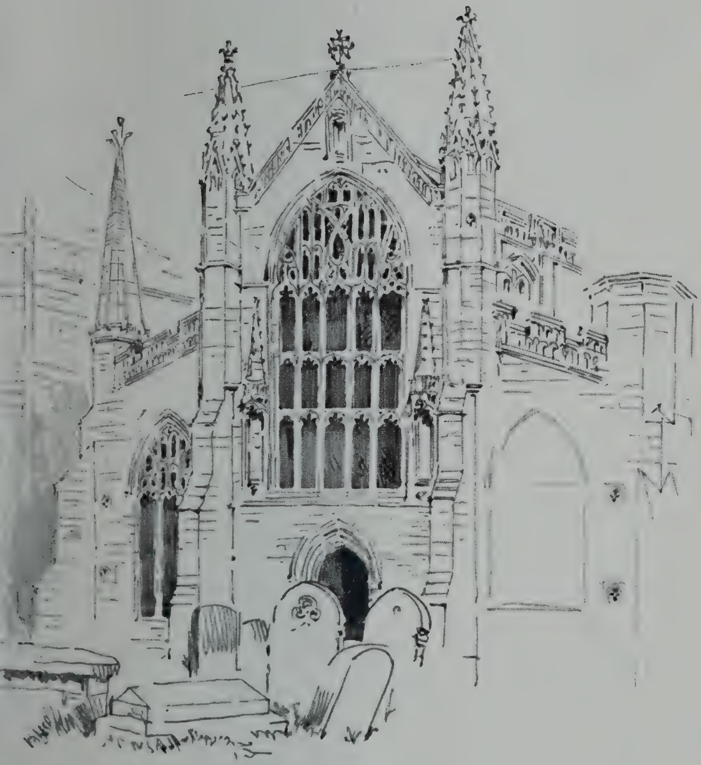
The plan in its broad arrangement underwent no radical change. The main lines were similar to those of the previous century. The difference in design will be best understood by a consideration of the main features.

It should be clearly grasped that in ecclesiastical building of this century by far the most important work was in the nature of addition or restoration. In the sense that it produced many buildings this century was not a great building era. As regards churches, the need had been generally met, and buildings entirely in the Perpendicular style are comparatively rare.

ST. MARGARET'S CH. LEICESTER.

The main characteristics are the stressing of vertical lines in windows and throughout the elevations generally; the disappearance of the triforium; the alteration in the shape of arches, and especially in vaulting.

The use of panelling, referred to in the last chapter, as greatly developed.



ST. CLEMENT'S CHURCH, TERRINGTON.

The four-centred arch, a new type, was evolved and became an important feature in doors, etc., of the time.

As an engineering problem it is interesting, but it added nothing to the beauty of the arches of a more simple type designed by the Norman and Early English builders.

There was a marked decrease in the size of piers, and buttresses had to carry a great deal of the weight which piers supported previously. Buttresses became enormous, and in some cases were of sufficient size to allow of a chapel being planned between them. King's College, Cambridge, is one such example. This was a peculiar and rather absurd development from the earlier Gothic plan. It cannot be justified either on constructional or æsthetic grounds. It is merely rather ingenious – which adjective describes much of the design in the work of this time. Much of it cannot be taken very seriously.

The most important change in the main plan and which is referred to above was undoubtedly the abolition of the triforium.

Parish churches, and many important abbey churches, of the thirteenth century had been built without a triforium. So the fifteenth century really did not produce a new type of plan, but applied the older plan to a larger type of building than it had hitherto been used for.

There had been a tendency towards this radical change for some time. The nave of York Minster, 1300–38, the choir of Lichfield, 1330, and the Lady Chapel of Wells, 1326–63, all show a marked movement towards two stories instead of three. Indeed, in Lichfield choir the triforium is entirely omitted.

At York the triforium is recessed and the mullions of the clerestory windows, which in this case are on the inside face of the wall, are carried down to the string-course above the nave arcade.

At Wells the treatment is most unusual. There is no

COMPTON WINYATES, NORTHAMPTON.

KING'S SUTTON, WARWICK.

string over the nave arcade. The spandrels between the arches are filled with panelling which is carried right

MOULTON . LINCS.

ıp to the bottom of the clerestory windows. The vhole effect of this abolition of the triforium, besides, ıf course, allowing for better lighting, certainly adds ıeight. This effect of height is further emphasized by the vaulting shafts which run from floor to springing and form part of the piers.

The most interesting buildings in the Perpendicular style are certain Royal and Collegiate chapels. The windows became larger than ever, and the mullions are carried the whole height, which characteristic gives the name to the style. Doors usually have a square label carried over the arch.

The vaulting is particularly interesting and eventually became radically different from that of the previous periods. The fan vault of this century was a growth from the lierne vault mentioned in the last chapter. The earliest vaults had been composed of a stone panel filled in with small pieces of stone. After the introduction of the lierne ribs the frame rapidly developed until the ribs became so numerous that some of the spaces between were filled by three or four stones only. Finally, rib and panel were worked from the same stone. In the developed English type the ribs take the shape of a half-open fan – hence the name. The first example of this sort of vault is at Gloucester Cathedral, built about 1370; but the main arches are here pointed, so it is not typical. In most other and later cases they are four centred.

Once this method was understood it developed rapidly; pendants were introduced, cusps to the panels worked in, and all sorts of elaborations and enrichments of amazing ingenuity followed.

Stone panelling of walls had begun in the middle of the fourteenth century, but only in a very mild way. Even that part of Canterbury built shortly before and after 1400 has little. Winchester, rather later, has the whole west front panelled. The most notable example, however, is Henry VII's Chapel, where practically no plain wall surface is left inside or out – the whole is treated with panels.

Piers were generally oblong, and the vaulting shaft carrying the main ribs usually ran right up from the ground and attached to the piers.

FOTHERINGHAY · NORTHANTS

A very usual pier is one composed of four round hafts connected by hollows. The decoration is extrardinarily elaborate. All kinds of crestings and miniaure battlements were applied to cornices, transomes nd other horizontal members without any regard to se.

The character of foliage as used in carving of wood nd stone was conventional, and generally not deeply ut. Canopies and crockets were very freely used.

Specially characteristic ornaments are the Tudor rose and fleur-de-lis. Chancel screens in wood are common during the Perpendicular period, and numerous examples exist as additions in churches of earlier date. They are often most complicated in design, and a usual form is treated with panels below and elaborate mullions and tracery above, and covered with niches and statues. Stained glass became most gorgeous in colour and confused in design. A special golden tint was much used.

EAST BRENT CH. SOMERSET

Colour decoration was widely applied to roofs, pulpits, screens, etc. Some of the best examples that survive are to be found in Norfolk.

BATH ABBEY.

The last building in the Perpendicular style is Bath Abbey Church, commenced at the end of the century but not completed till the second quarter of the sixteenth century. It is the only large monastic church built after the middle of the century.

It has an immense clerestory, to which the nave arcade and aisles are sacrificed. The latter have flat roofs to give the clerestory all the height possible. It has fan vaulting to both aisles and nave. On account of the great height of the superstructure the flying buttresses are at an unusually steep angle. The result of the whole design is not very harmonious; it is top-heavy, and the enormous clerestory dwarfs the other parts in a rather unpleasant manner.

Perpendicular work has been, and still is, a subject on which opinion differs rather violently. It has been described by some authorities as the culminating phase of English Gothic, and by others as degenerate.

In the writer's view neither statement is correct; although the latter is nearer the truth. But it is so vigorous and full of spirit that degenerate is not the right description. It went too far and over-developed more simple forms, and what is more important, overloaded its main structure with too elaborate detail. Much of the detail also was misapplied. Further, the artist craftsman got too much control and the architect was unable to keep the harmony of the earlier Gothic phases. There is no repose – the main lines are often lost – the colour is bewildering. Most Perpendicular work is entirely lacking in monumental quality, and for this reason it cannot be considered as great. One can pay tribute to its ingenuity, but that is all.

Numerous colleges and schools were built in this period, many of which survive in very perfect preservation. Their general characteristics are exactly on the lines of the ecclesiastical buildings.

REFINEMENTS

No outline of Gothic architecture would be complete without some consideration of the subject of 'refinements.' It has been well known to architects, who have specialized in original Gothic work, that certain irregularities occur in some cathedrals and churches in respect of height and levels, etc. That is to say, for example, a long horizontal moulding, such as a string-course over a nave arcade, may not be truly horizontal when checked by accurate measurements. This fact has long been known about certain buildings by a few people who had intimate connection with them. Until recently the matter received no general attention, and no deductions were made from these isolated cases. Some few years ago a small body of enthusiasts investigated these irregularities over a very large number of cathedrals and churches. They came to the conclusion that all of these irregularities, or 'refinements,' as they termed them, were intentional, and had been introduced for the purpose of improving the design. Thus, to consider the example quoted above, it was found by measurement that a string-course was slightly higher in the centre than at both ends. It is a well-known fact, of course, that a horizontal line will, under certain conditions, appear to sag in the middle, or a tall column, if made perfectly straight, will appear thicker at the top than at the bottom. The conclusion come to was that all such irregularities were done on purpose, and large numbers of drawings and photographs were published in support of this view. If this view is correct it assumes an accuracy of drawing and setting out which is difficult to accept. Such refinements would not show on a small scale drawing and would only be possible to work out on large detailed plans. Further, certain of these refinements operate the wrong way. There are cases where lines are dropped to give a greater effect of length to a building, but viewed from the other end, the effect is precisely the opposite. The whole theory is very unconvincing. The writer, who has no claim to be a Gothic specialist, does not deny that in some cases these irregularities were intentional, indeed it seems probable they must have been. But the claim that they are all so, is not, in his view, capable of being sustained. A survey of any mediæval building shows all sorts of irregularities not apparent to the eye. These are due to many causes, such as inaccuracy in setting out the plan, settlement of ground, foundations or superstructure. A stone may be fitted badly in its bed, and this may, if part of a moulding, affect the next one, and so on. Numerous examples of such possible causes could be mentioned.

The probability is that while a few of these refinements were deliberately designed to create some optical illusion, by far the larger number were not, and were merely incidental to the building conditions of mediæval times.

THE PARISH CHURCH

In planning this book it was obvious that the subject of the English parish church was one of very great importance. It has been for several hundreds of years, and still is such a prominent feature of the life of the country, that it demands some rather special treatment in a book on English buildings. Although it has been dealt with to a limited extent in the earlier chapters on Romanesque and Gothic work, it seems desirable here, while considering the last phase of Gothic architecture, to review briefly its main characteristics.

The English parish church is a very national growth. The social life of the country developed largely in villages, and each of these had its church. The churches of France are often far larger and more important than in this country, but for number, variety of treatment and charm, those of the latter are unsurpassed. The village life in England was entirely different from that of the west of Europe, where the walled city played a much more prominent part.

Parish churches are of great variety in plan and size. Certain main features, however, are seen to predominate at various times.

The earliest and most simple form, as has been mentioned in the part of this book dealing with Saxon work, was a rectangular nave and chancel with or without a west tower. Sometimes a south porch, sometimes a south and north porch occurred. Often these were later additions. While the abbey churches as early as Norman times had apses, the square chancel remained customary in churches.

Aisles were used whenever the accommodation required them. They were introduced to overcome the difficulty of roofing over a large span, and have no other significance. A few churches had transepts, but this is exceptional. The cruciform plan is rare in the English church.

Chancels were nearly always built without aisles, and were invariably at a higher level than the nave. Further, the altar was raised over the level of the chancel. There are exceptions, but they are so few as to be hardly worth consideration. There was a further division in levels in the chancel. Nearly always that part of the chancel at the east end, divided by the altar rails from the body of the chancel, was raised a step above the ground-level. Many of these steps were symbolic, or have come to be symbolic. It is really doubtful if, originally, they were more than features proper to a well-thought-out plan. This is difficult ground, over which there has been a great deal of discussion. The writer's view is that no symbolism was originally intended, but that the crystallization of form grew into a convention to which in time a certain meaning became attached. There is no special proportion observed between the nave and the chancel. The general tendency was a continuous reduction in the size of the chancel throughout the whole of the Gothic period.

In the relation of aisle to nave, it is hardly possible to show any exact tendency of growth.

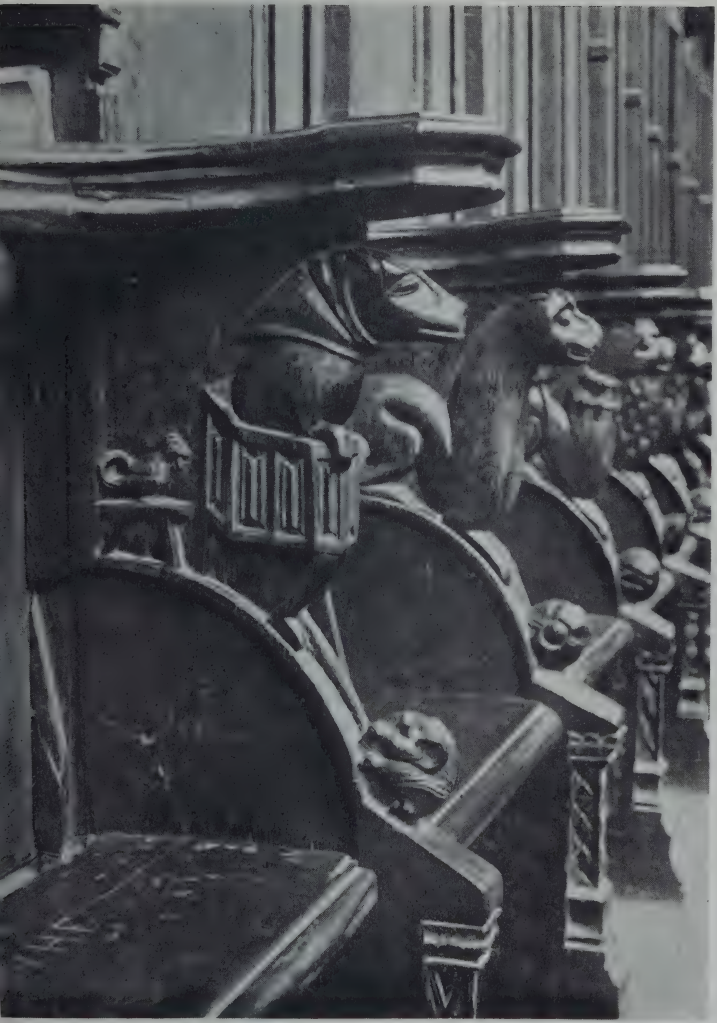
In the earliest examples containing aisles, these are narrow. Later they often carry out the same main plans as in cathedrals, in which the aisle is, approximately, half the width of the nave.

In certain late churches the aisles are very wide indeed – almost as wide as the nave. In one or two cases, as Thaxted, Essex, they are wider than the nave.

The triforium hardly occurs in parish churches. In the greater number of churches from the Norman to the middle of the fourteenth century there was no clerestory, and lighting was from the nave or aisle windows.

Sometimes the whole building was roofed with one roof. Sometimes the aisles were roofed separately with a lean-to or, very occasionally, with a double roof.

As there were no clerestories the thirteenth- and fourteenth-century churches were low. Towards the end of the fourteenth century the clerestory was brought in and became general. Practically all the fifteenth-century churches have clerestories, which in some cases



CARVED SEATS IN CHOIR, CHRISTCHURCH PRIORY.

A fox preaching to geese, a subject frequently found in carvings of the later mediæval period.

are almost one continuous light divided by slender piers. The aisle windows grew in size at the same time. The main reason was the importance attached to coloured glass at this time. The engineering skill of the mason had an ever-increasing demand made upon it; piers grew ever smaller and windows ever larger.

As much of this stained glass has gone and has been replaced by plain, the effect in many cases is quite different from the original, and the windows seem too large and the interior too bright. On the other hand, when all the glass was coloured the external effect must have been unsatisfactory, and it is probably better now. In the writer's view these later churches are not to be compared with those of the thirteenth and with some of those of the fourteenth centuries.

The wooden roofs of the Gothic period are essentially an English feature. In France the large churches were vaulted, and in Italy usually panelled. Very few roofs remain in this country earlier than the fourteenth century. The early roofs were steep pitched, as can be seen in many cases by the stone-work on a tower or other such means. These were doubtless ordinary simple trussed roofs, and in most cases open.

Many roofs were removed in the Perpendicular period to allow of the walls being raised to form a clerestory. Generally the timbers were oak, and very heavy for the work they had to do. This is one of the main elements of their charm. Most roofs were carved, often very elaborately, and painted in bright colours. Much of this paint has disappeared, but enough remains to give us an idea of many of the original schemes.

SCOTLAND

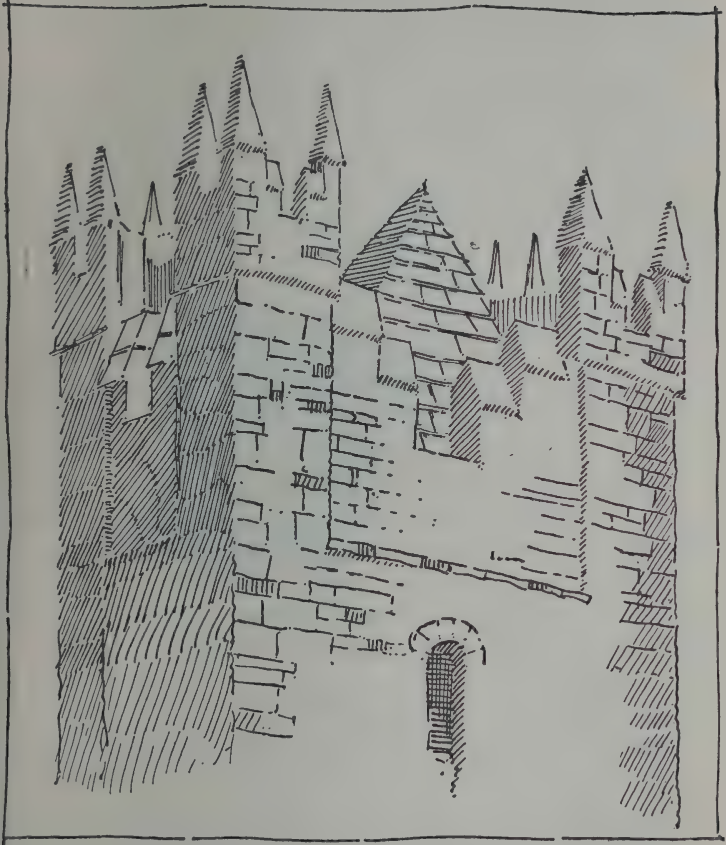
While England was developing Perpendicular tracery and fan vaulting in her late Gothic work, the Scottish architects were proceeding on quite different lines. The influence on their work was more decidedly French than ever. Tracery became very flamboyant and, following the French extreme, so light that it is difficult to see how it ever stood up. The French work at the end of the fifteenth century was most unsuitable for stone and could really have only been done in metal. It is small wonder that most of it has fallen down. This fineness and delicacy was singularly unsuitable to the climate and material of Scotland. In no way was it successful. English fan vaulting did not penetrate to Scotland. The early vaulting had been vigorous and boldly treated in broad lines and with strong detail. Now the French influence predominated and the very light, weak and ill-constructed vaulting of Northern France was introduced.

The Scottish work of the time is rare and unimportant and not comparable to the Royal and Collegiate chapels of England.

IRELAND

Irish work of the period is scarce, crude and insignificant. Certain buildings show features which are of considerable archæological interest, and indicate influence other than English or French, but no building exists of this century comparable to those of England.

Certain rather curious isolated examples occur whose origin is difficult to detect. Muckross Abbey, near



JERPOINT ABBEY, KILKENNY.

Killarney, has cloisters with round arches and fifteenth-century detail. This has never been adequately explained, and the probability is it was due to the individual whims of some designer of the time.

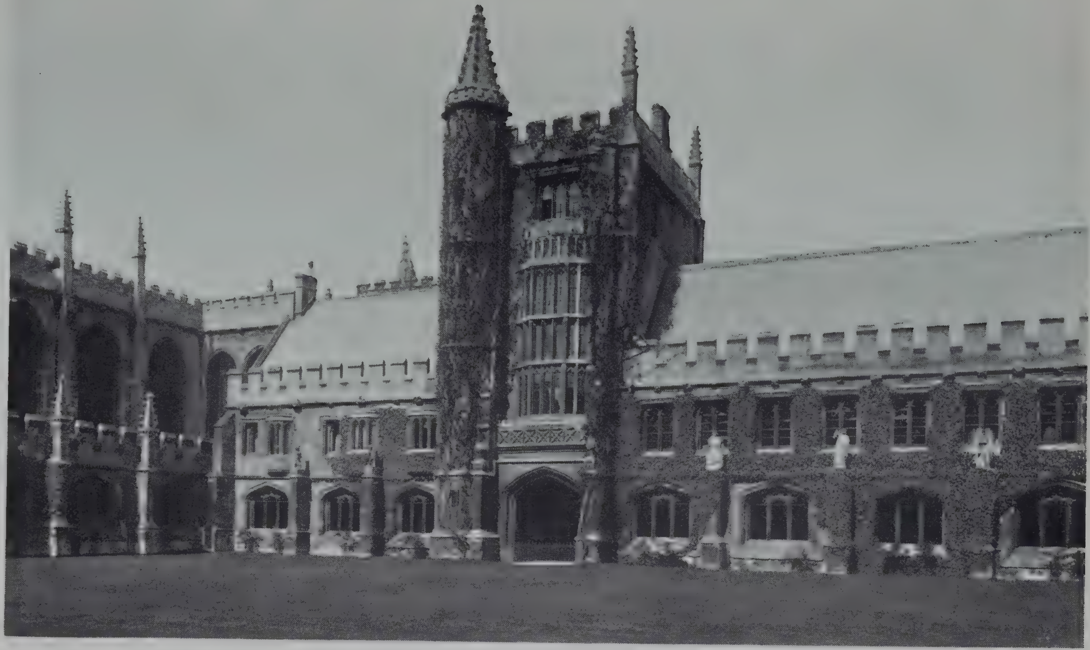
Jerpoint Abbey has a tower with battlements quite unlike anything to be seen in England or Scotland. They are of a type common in North Italy in the thirteenth century. There is nothing in the rest of the building to suggest Italian influence. It is a Cistercian monastery of the late Romanesque period. The tower is certainly later but cannot be assigned to the fifteenth century with certainty: it may be earlier.

There was some Spanish influence in Ireland. The cloisters in the monastery at Kilconnell are, while crude and ill-proportioned, distinctly Spanish and quite unlike any to be found in England or France.

In Galway there are, or were until recently, certain houses containing doors and windows of the period, the detail of which is definitely Spanish. This is not very surprising, as there was considerable trade at the time between Spain and Galway, and it is known that certain Spanish families settled there.

CASTLES

One of the best examples of the quadrangular-plan castle was Hurstmonceaux in Sussex, built by Sir Roger Fiennes *c.* 1440, some fifty years later than Bodiam. It is built of small Flemish bricks of the beautiful quality made at that time. The elevations were more elaborate than was usual at that date – the gate towers being octagonal in their lower stories and circular above, with turrets forming the top story. The build-



FOUNDERS' TOWER, MAGDALEN COLLEGE, OXFORD.

VERY LATE 15TH CENTURY.

ing is now practically in ruins, but is described by Walpole in 1752 as being then in a perfect state of preservation. A great deal of the dilapidation is due to the nineteenth-century architect, Wyatt, 'of infamous memory,' referred to in the chapter of this book dealing with that period. He used the material for a sham Gothic building – and very badly too. Hurstmonceaux is one of the few castles proper built after 1400; most of the great houses built from now on, and all after the middle of the century, were definitely of the fortified manor-house type.

Tattershall Castle, in Lincolnshire, was built about the same time as Hurstmonceaux and was also of brick. It was built by Ralph, Lord Cromwell, treasurer to Henry V, and must have been a truly magnificent specimen of the very late castle. It was partially dismantled in the time of the Commonwealth, and further pulled down in the eighteenth century; and little remains today. It had a tower over 100 feet high with Perpendicular tracery in the windows, and four smaller towers with similar detail, one at each angle of the plan. The walls were immensely thick and contained many passages and closets and cupboards. The floors were carried on huge beams, and the lower floor on a sort of vaulted chamber which contained the well. Tattershall contained what was probably the most highly developed example of machicolation and bretasche in England. Why this should be so is difficult to say, as elsewhere fortification was on the rapid decline. It is one of these curious phenomena due, no doubt, to the idiosyncrasy of its builder, which are found in architecture, and which so often add to the difficulty of the study of a period.

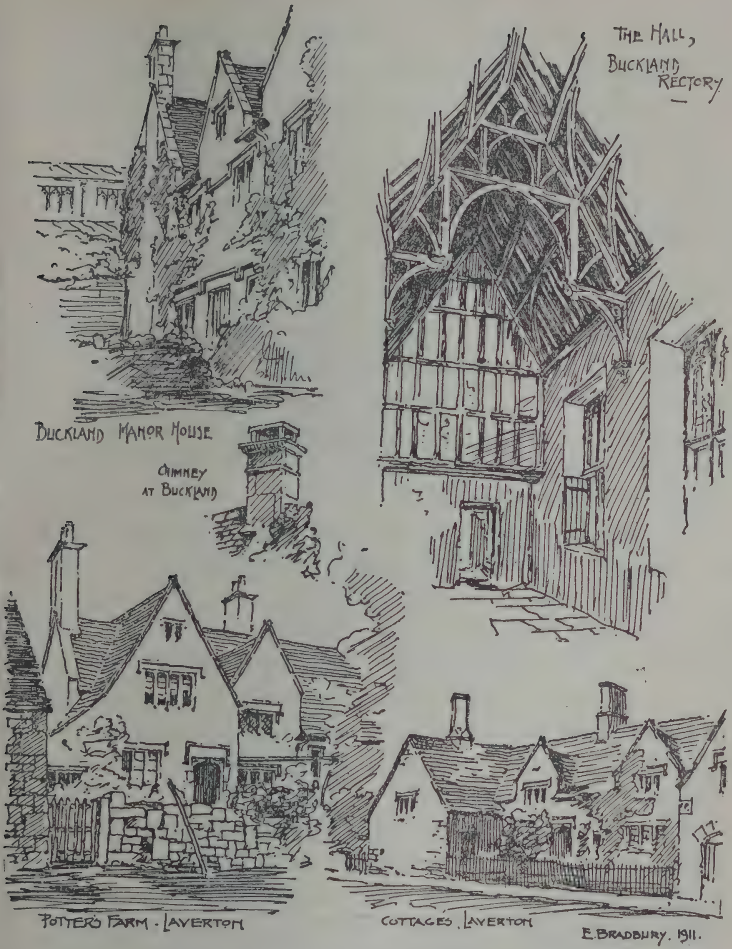
There are very many castellated mansions of this century which were in reality remodellings of earlier castles. Penshurst Place, in Kent, is such an example. It was originally a quadrangular castle, or very strongly fortified manor, of the fourteenth century, but was very extensively rebuilt at different times into a particularly interesting combination of castle and manor. The hall is about 60 feet by 40 feet, and is unusually high. It has an open timber roof and large windows at the floor-level. The fire-place was central. It is a beautiful example of fourteenth- and fifteenth-century domestic building.

In Scotland the transition from castle to mansion was not so rapid. Castles based on the quadrangular plan, and, like Bodiam, of French origin, were freely built at this time, and indeed up to the middle of the next century. Stirling is perhaps the best example of the type. The idea of defence was still the main one here, and the plan was nothing like so elaborate as in contemporary buildings in England. Many quite plain keeps, based on the earlier concentric type, were also built at this time.

The Irish examples are not of importance; any castle building that took place at this time was only minor remodelling of earlier Anglo-Norman buildings. The occupied castles remained much as formerly, the greatest development being of the very simplest concentric type, or a plain keep surrounded by outer defences. Castle building never reached any elaboration in Ireland.

HOUSES

Possibly the most striking development in domestic architecture of this time is that of the manor-house. It



FOURTEENTH- AND FIFTEENTH-CENTURY DOMESTIC WORK.

is true that the great fortified, or, as they are sometimes called, 'castellated,' mansions are more striking; but it is to be remembered that such buildings were few and scattered and were the residences of only the highest families in the land.

A new class was rapidly rising in fifteenth-century England – a middle class of lesser gentry. Nobles impoverished by the wars of the Roses married into families of successful merchants and traders. Such alliances founded families whose standard of life on general lines was not much different from that of the nobility. The difference was more a question of scale than of system. The house suitable to a family of this sort was naturally more complicated than that of the previous century. Let us consider the plan of a good-class fifteenth-century house.

It usually had a front courtyard containing the stables, etc. The house proper occupied one side of the courtyard, and opposite to it was the gate-house or lodge. In most cases there was a moat.

The kitchen, etc., of the fourteenth-century house is replaced on the plan by a winter parlour, the forerunner of the dining-room. A back courtyard with buildings all round it contained the kitchen and all its offices, brew-house, bake-house, etc.

The solar and hall were in the same position as formerly. Another bedroom was placed over the winter parlour and would have been approached by a staircase at the end of the screens. The staircase was still a spiral one. The whole plan is far more elaborate than that of the previous century. The hall, however, was still the main feature. The roofing is more grouped up, and one main roof covered the whole of the principal building, with gables over the front projections.

The number of small rooms increased, and far greater privacy in sleeping-quarters and in daily life was possible than in the house of a hundred years earlier.

The elevation of the main front at least was more balanced than previously. The grouping up of the roof indicated one house rather than a collection of dependent rooms clustered round the hall.

A new feature of design was the oriel window. Perhaps the most important development in the plan of the late fifteenth-century house was the introduction of the winter parlour. As mentioned previously, this was the beginning of the dining-room. Its origin is rather conjectural, but it was planned primarily for greater comfort and privacy at meal-times; very likely for the use of the owner as a study or business room also.

As in church work, joinery advanced greatly in the fifteenth century; many rooms were panelled. Panelling, of course, existed at a much earlier date, but it was now greatly modified and became lighter and more decorative in character.

A certain type called the linen-fold, because the panels are shaped like folded linen, was invented and has been greatly copied in modern times. As a matter of fact, it is a rather stupid and illogical type of design, although it must be admitted it is decorative.

There were no ceilings in a house of this time, or rather it is more correct to say that the ceilings were formed by the floorboards of the room overhead, which boards were carried on heavy joists or beams.

A good deal of colour was used on walls that were not panelled, and indeed on many that were. There is a general view that oak in the old days was always left plain, but this is probably quite erroneous. A plain oak room, with little furniture and no pictures, with a ceiling and floor all of the same material, would have been a dreary place in the winter months. People at this time had a great love of colour, and it is most unlikely that they would have put up with such a lack of decoration. However, there is not the space to discuss this question at length, and if the reader wishes more information he will have to go to one of the special books on the subject.

Windows were now always glazed and the use of coloured glass in halls was common.

A new type of wooden roof was evolved in the fifteenth century or very late in the fourteenth, on entirely different lines to any previous construction. This is known as the hammer-beam roof. The earlier open roofs, whatever their construction, had always had a large beam, called the tie-beam, running across from wall to wall, with various struts resting on it carrying the rafters above.

In the hammer-beam roof this tie is dispensed with and the roof is supported by short beams projecting from the wall and resting on struts. The arrangement suggests the shape of a hammer – hence the name.

This type of open roof adds greatly to the height of the room, and while it is not a very mechanical method of construction, it is very effective in appearance. Westminster Hall is generally quoted as being about the best example, although it is a very early one.

CHAPTER EIGHT

The Early Renaissance

THE SIXTEENTH CENTURY

As has been pointed out previously in Chapter Five of this book, no definition of the English styles by dates can be quite satisfactory. The merging of one style into another was a slow process; and the transition lasted sometimes as long as the periods which it connected.

The method of dealing with the various styles by a division of centuries has been adopted here, however, after a considerable amount of thought and planning. It is astonishing how easily this method works, and the arrangement is, in the writer's view, the best for a general history. In a period history the question is entirely different, as far more detail has to be taken into account and explained.

The division of styles by the dates of kings, frequently attempted in the past, is both ridiculous and misleading. Such labels as Tudor, Elizabethan, etc., are best avoided, but as these have now become crystallized, their complete disuse is almost impossible.

TUDOR

While Gothic was a growth from the earliest type of work introduced from France and which had developed on national lines in England, a new element came in at the beginning of the sixteenth century. Foreign influence with a new character was again imported, and growth on purely native lines ceased. It is a matter of doubt whether early sixteenth-century work (commonly called Tudor) should be included in the Gothic or in the Renaissance period. The main features of design were still Gothic, although often debased, but Italian (Classic) details greatly affected decoration and mouldings, etc., quite early in the century.

The arguments for both methods are fairly evenly balanced, but in the writer's view, especially where a division of centuries is the guiding principle, those of the latter outweigh the former. The writer would, if possible, ignore the term Tudor, and think of the early sixteenth-century work as late Gothic, in which, in many cases, early Renaissance detail occurs.

Against this it is realized that the majority of writers have taken the contrary view and dealt with Gothic as extending up to the middle of the sixteenth century. Much Gothic work, however, erected in the sixteenth century, was impure and showed some Classic influence.

On the whole, therefore, the present arrangement seems to be the better and most easily grasped.

The sixteenth century is specially interesting as it really was the turning-point between mediæval and modern life. Certain points stand out which are of particular interest in the history of architecture.

In the Middle Ages architecture was the chief art, and was studied by all men of culture – bishop and noble alike. With the Renaissance came the enormously increased interest in literature, and architecture took a back seat. It became the study of a special set of artists, mostly men of middle-class origin – it lost its general interest. How far this general interest revived again in the eighteenth century is discussed in the chapter dealing with that period.

To understand the Renaissance it is necessary to consider the causes that led up to the introduction of its spirit into England. The conquest of Constantinople in the middle of the fifteenth century drove many educated men and leaders of various schools of learning to Italy. There was a great revival in classic literature, which, in its turn, caused a revival of interest in Roman architecture. Italian architecture was soon affected; much earlier, naturally, than that of France or England. Roman remains existed freely in Italy, and the first return to Classic form was a copying of these. The orders were revived but used rather more as decoration than for structural reasons. The movement grew rapidly and form changed until various fairly well-defined schools existed which are the forerunners of all European styles in this manner. There was rapid development in detail and decoration, some of which was of the highest order; but many phases were mechanical and of no merit whatever.

The dissolution of the monasteries had an important effect on building, as large possessions held by the Church were transferred to lay hands. The religious confusion stopped church building – consequently a considerable number of skilled craftsmen were available for house building. Life was becoming much more safe and the security of property under Elizabeth's strong rule was an incentive to build better houses.

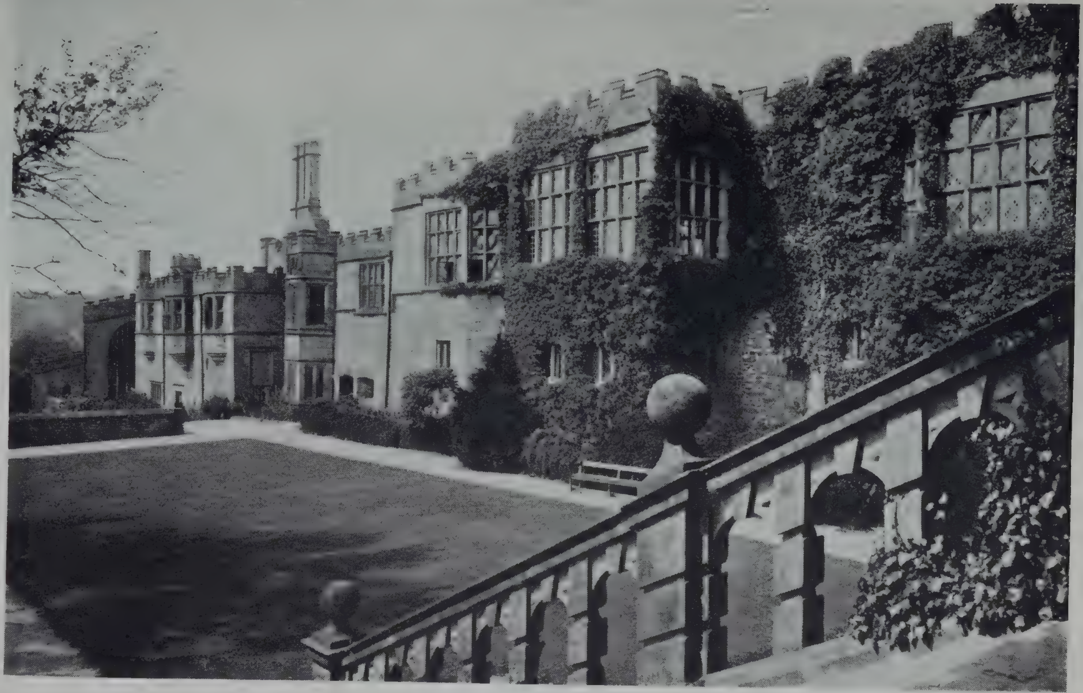
A good many houses of the Tudor period exist to-day which are often ascribed to an earlier date. There is a tendency among owners to place these houses back a hundred or two hundred years before the proper date on very insufficient evidence. It is quite common to see a room labelled 'refectory,' or some other such term, which clearly dates from after the suppression of the monasteries. The vast majority of Gothic woodwork that survives to-day is of the early sixteenth century.

Few English buildings other than ecclesiastical still exist which are prior to the fifteenth century, and indeed there are not very many dating from that time. Necessary alterations in towns, fire, natural decay, have all contributed to their destruction. Of sixteenth-century buildings, however, there is a wealth of work of all sorts remaining to-day.

The Renaissance can be considered to have started in England when Henry VIII came to the throne in 1509. The King was, for his time, a scholar and man of parts, and took an active interest in the new ideas. The movement in Italy was well known to travelled Englishmen, and early in the sixteenth century many Italians came to visit the great English houses.

One of the most important of these early Italian visitors was Pietro Torrigiano, who had been a student with Michael Angelo. He was given the commission of designing the tomb of Henry VII, of which the detail is, naturally, in the Renaissance manner.

By about 1530 the new style had taken a firm hold, and buildings in the Italian manner were springing up, especially in the south and east. Most of the work of this time is nearly certainly by Italians, while some on the east coast is ascribed by most authorities to workers from Flanders. This is coarser than most work in the south and more like that found in the Netherlands.



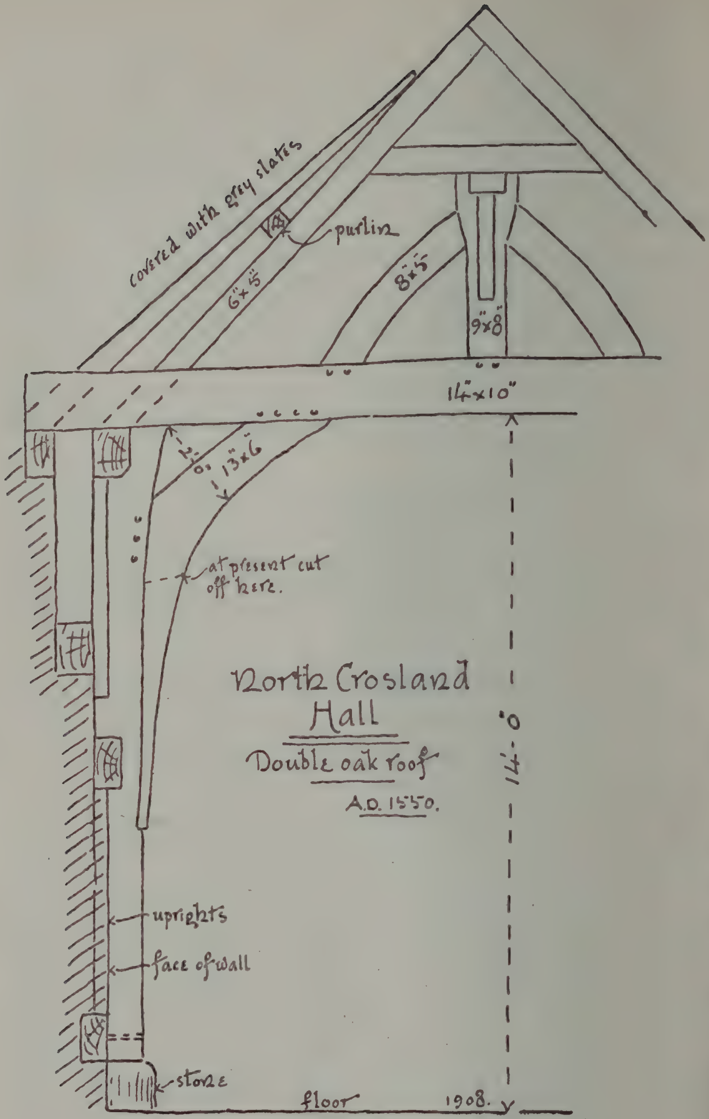
HADDON HALL.

Opinions differ very much as to how this early Renaissance work was designed and carried out. Tudor work is described by Professor Bannister Fletcher in his history as 'the work of builders trained in Gothic art but working under the directions of a designer familiar with the new features of the Renaissance.' This may be, and probably is, true of certain buildings, but is by no means universally so. Much Tudor work followed the old Gothic tradition in main design, and it is only in its carving that the new type of detail appears. The men who did this carving could have had nothing to do with the main design.

It must be remembered that the Gothic tradition was carried on in out-of-the-way places right through this century and even through the next. Lots of simple farms and minor buildings occur of seventeenth-century date which are quite in the Gothic manner and show nothing that can really be called Classic in design.

All the important buildings, however, after about 1530, indicate some Classic treatment of detail, but no building which can be called fully Renaissance seems to have been erected in the first half of the century.

In the north practically no trace of Renaissance influence occurred till after the middle of the century. Even in the south many late Gothic buildings show only a very slight indication of the new treatment – so slight as to be somewhat remarkable and hard to explain. One of the most interesting of such cases is Hengrave Hall, Suffolk, built in the second quarter of the century. This house is orthodox late Gothic (and is referred to in most books as Tudor), and its only Classic detail occurs in an oriel window. This seems to have been contem-


covered with grey slates
purlin
6"×5"
8"×5"
9"×8"
14"×10"
2'.0"
13"×6
at present cut off here.
North Crosland Hall
Double oak roof
A.D. 1550.
14'.0"
uprights
face of wall
stone
floor
1908.

porary with the house and not a later addition. A good many similar examples are to be found, and one can only guess at the reasons.

The church at Layer Marney, Essex, contains tombs erected to two brothers within two years of each other – 1523 and 1525. The earlier is Renaissance, and the later Gothic. Many explanations have been given, but they are necessarily speculative.

About the middle of the century Henry VIII was excommunicated by the Pope, and for this and other reasons the Roman Catholic Italian craftsmen left the country. Trade was largely diverted to Protestant countries and a good many Germans and craftsmen from the Low Countries settled in, or visited, England.

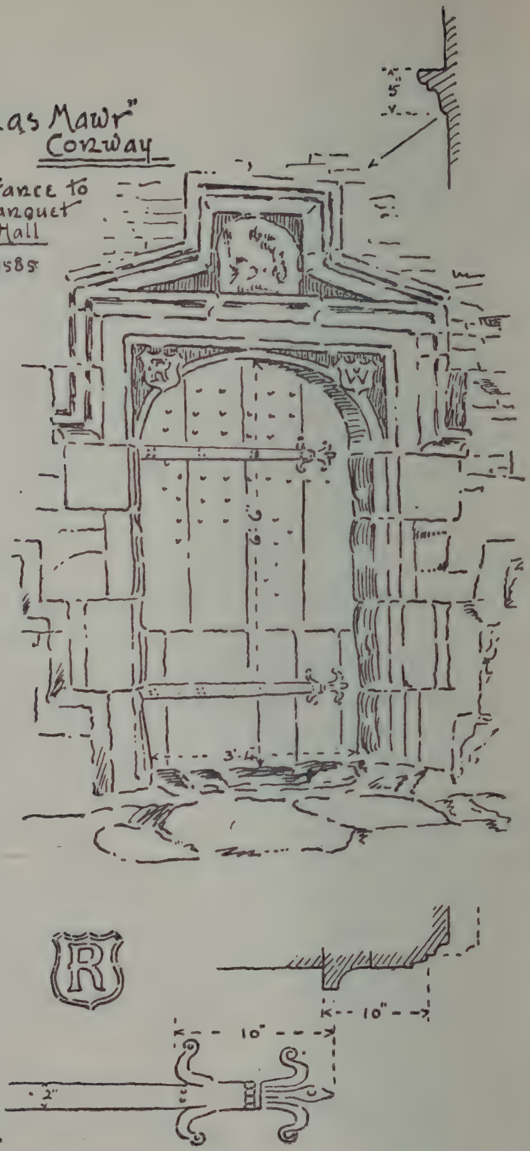
These German craftsmen were, until recently, usually supposed to have been responsible for a great deal of the work of Elizabethan times. This view is now discredited and the amount of work they did is, nearly certainly, very trifling. The vast bulk of Elizabethan work was by English craftsmen. Throughout the early part of this period there was still no architect as we understand the term to-day. Plans seem to have been made by 'surveyors,' as they were sometimes termed, which were probably only outline drawings, and the construction left to the various tradesmen. At other times, and in the smaller and less important buildings, the plans were drawn by the master mason or joiner. The materials were generally provided by the owner, and oak was still almost universally used for all the carpentry work of a house.

Later in the century one or two men who really seem to have been architects appeared. One of the most

"Plas Mawr"
Conway

Entrance to
Banquet
Hall

A.D. 1585



Aug: 1908.

interesting of these was a certain John Shute, who went to Italy about the year 1550, and who a decade later published a book illustrating Classic architecture. This book was dedicated to Queen Elizabeth and ran into several editions. On the title-page Shute is called 'Paynter and Archytecte.' We do not know of any buildings erected by him, and he may have been merely a draughtsman.

Another architect at the end of the century was the famous John Thorpe. He is best known by his sketch-book preserved in the Soane Museum, and his exact status is not clear and has been the subject of great discussion by eminent authorities. He certainly worked as a surveyor, but there seems little or no doubt that he designed and supervised the erection of buildings, among which were many important country mansions.

John Thorpe's collection of drawings is of very great value, as the plans show what a complete house of the time was like. In most cases the houses of this date have been altered or added to so much that it is frequently impossible to see what their original plan was. Hence the value of the contemporary drawings.

Although the hall is still important in these plans, some of them show a dining-parlour and most of them a winter parlour. A servants' dining-room also occurs, but this certainly was not usual till much later. However, it is clear from this and other sources that the family, by the second half of the sixteenth century, was accustomed to take its meals in private, and the steward presided in the hall. Thorpe's plans show a greatly elaborated arrangement of kitchen offices, and the steward, butler, pantler, etc., all have their separate places; while the number of larders, sculleries and serving-rooms is legion.

The hall was passing – its use was not required, and by the end of the century, or early in the next, it had ceased to be a living-room and had become of little more importance than the entrance hall which survives to-day.

John Smithson, another architect who worked at the same time and slightly after Thorpe, made many designs which have been preserved. He was succeeded by his son, and their plans also help to throw much light on the late sixteenth- and early seventeenth-century houses.

Let us consider the main lines of Renaissance architecture as it developed during the reign of Elizabeth. Practically no churches were built, as the needs had been fully met in the previous centuries. This is an essential difference between English and Italian Renaissance, as in the latter church building was a very important feature.

The great bulk of Elizabethan work consisted of houses for the nobility and merchants, both in town and country. Elizabethan craftsmanship, including that of furniture and decoration, was, broadly, an effort to use Italian form in a manner suitable to England. It was a sort of compromise, and very often the Italian form was ill-understood and ill-applied.

The main features of an Elizabethan plan were these. The principal apartment was still the great hall, usually panelled in oak for its lower portion. At one end of the hall the screen was placed, and in a large house this had the minstrels' gallery over it. The fire-place was made very elaborate and became far more prominent than formerly. The winter parlour became general and was used by the family for all meals, the hall still being used by the servants for this purpose.

In the previous centuries the solar was placed upstairs, as has been described, and this practice continued. This room was still used as a bedroom, but had begun to be more definitely a sitting-room, and indeed may not always have been used for sleeping purposes. It was the origin of the later withdrawing-room.

The long gallery extending the whole length of the house was on the first floor, and was narrow and low in proportion to its great length. Its bay windows were generally an important part of its plan and were sometimes as large as ordinary rooms. The walls were always oak panelled for the whole height, and the ceilings were elaborately treated in plaster.

Many more bedrooms were added to the plan than existed formerly, although these often were only accessible through others.

The general plan was far more symmetrical than that of the fifteenth-century house. The hall by now was completely part of the house, and was roofed with the other apartments. There is nothing to distinguish it externally from the rest of the building.

The four-centred arches disappeared, and arches, where used, were semicircular.

Windows were treated with square heads, and the attic windows generally had gables which were still Gothic in their general design and shape.

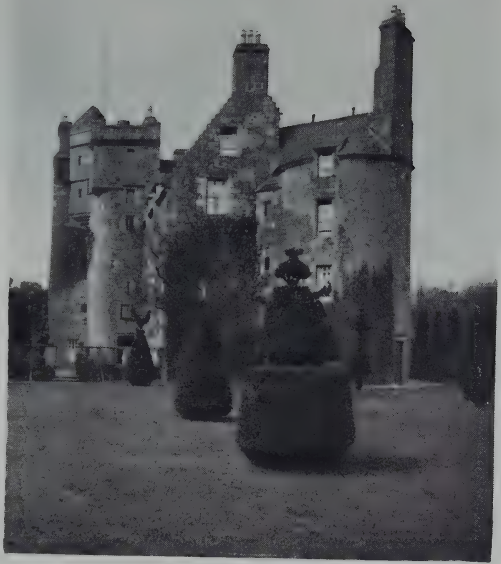
A very important development took place in the staircase. Up to now this had always been spiral and nearly always of stone. Then quite suddenly the great open wooden staircase appeared, and even the earliest examples were usually richly carved and decorated.

The general arrangement of the plan, as has been mentioned, grew more symmetrical. The entrance door was always in the centre of the main front and still opened into the screens in most cases. In the larger houses wings were carried out in front, and sometimes at the back also. The arrangement for a long time remained generally rather crude, and in the earlier houses of the courtyard type access from one part to another was by external doors and by crossing the courtyard. The rooms in the earlier houses were what is called single, that is, they ran the whole width of each wing. The double plan with rooms placed back to back was used in one or two wings of some of the great houses.

The great change in plan at the end of this period was the placing of the hall centrally instead of at one side as had always been the case.

There was a certain type of house which was a connecting link between the mediæval house and that of the early Renaissance. Such a one is Hengrave Hall. It is by no means regular on plan, but far more so than its predecessors. The main block is built round a courtyard on three sides of which runs a corridor, and the other is occupied by the hall. The hall has other apartments beyond it, and its only outlook, therefore, is on to the internal court. This house has very little foreign detail.

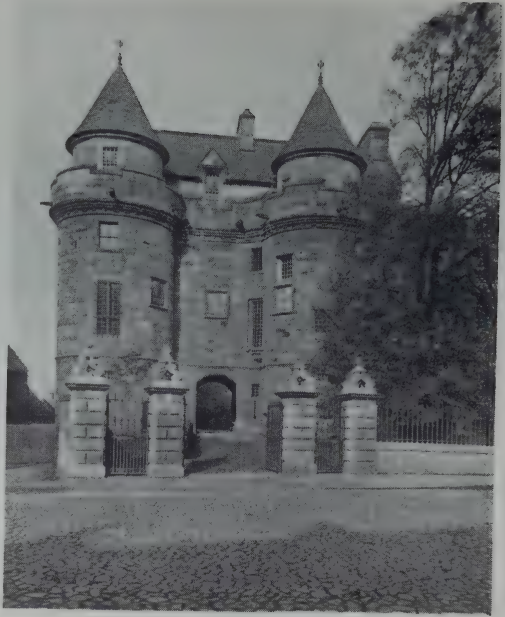
No distinction is made in this chapter between Elizabethan and Jacobean. There was no line of demarcation, and the whole of these, so-called, periods was one of continuous growth.



[Photo by Valentine & Sons.

EARLSHALL.

A good example of 16th and 17th century work.



[Photo by Valentine & Sons.

GATEWAY, FALKLAND PALACE.

The types of plan found in this phase of the Renaissance can be placed in three main groups. First, the smaller manor-house plan with the hall at one side and the entrance either at one side or central. Secondly, the plan based on a court with deep projecting wings forming the sides and either open or enclosed in front. Sometimes the front was the full height of the house, sometimes it was only a single-story corridor with an entrance in the centre. Thirdly, houses built as squares or rectangles without courtyards. Certain examples of this type had very fine halls. At Wollaton this plan was followed and the hall is high and is lit by a clerestory, and has no external windows on the ground floor. The second type is the most general.

TITHE BARN, BREDON.

All these houses had forecourts, sometimes with buildings and sometimes bounded by a wall or hedge. Important houses often had a gate-house, or gate-lodge, at the entrance to the forecourt.

Sometimes these gate-houses were quite important buildings in themselves, and are in many instances remarkable for their great height. At Cowdray, in Sussex, the gate-house is six stories in height, and the gate-tower at Layer Marney, in Essex, is no less than eight.

Many of these houses were built on sites of earlier buildings, and were very often protected by a moat. The drawbridge had become obsolete and was replaced by a bridge probably of wood, or a causeway. There is not much evidence about this; a few stone bridges survive, but they are most uncommon. In large numbers of cases the moats have been entirely or partly filled in, and in these cases stone bridges may have existed and have been removed.

Gardens were an important feature and were usually on the south of the house. Where the levels allowed it terraces were nearly always arranged. Defence and fortification were forgotten – people were interested in beautiful design for domestic buildings.

CHARACTERISTICS

It is difficult to define the main characteristics with anything like the certainty with which those of the Gothic period can be dealt with. The variation in method is so great in contemporary examples as to preclude all possibility of showing universal treatment at any given time.

It is fairly clear that designers differed radically in their views, and for a long time one school hung on to the Gothic tradition, while the other adopted the new, as they understood it. Up to the end of the century this resulted in a blending of detail which, while often wonderfully picturesque, cannot be considered great architecture. Certain features changed but little from those of the previous century. The mullioned window was retained even in the most classic examples. On the other hand, the symmetrical plan completely killed the older one.

The use of the orders was curiously restricted. There seems to have been a sort of general agreement that they should not be used externally, and as the tradition of Gothic carving had died out the external surfaces were therefore rather plain, an excellent thing which adds greatly to the monumental qualities of these houses. The cases where orders do exist externally are probably of German or other foreign influence, and are small in number. The three orders were used generally one above the other at an entrance.

In the interior no such restrictions existed, and the orders were freely used in panelling, chimney-pieces, etc., in a free-and-easy manner. This is really rather a curious phenomenon and has not been explained; but the fact remains that it is universal throughout this period. The detail of this internal work is usually coarse and barbarous in design, and is only redeemed by the very high skill often attained in the actual craftsmanship.

In the first part of the century the windows followed the old tradition and were comparatively small. Most early examples have only one row of lights and the transom did not come in till later. The rooms were low and great height was not needed in the windows, but gradually, where space allowed, as in the halls and large rooms, a marked increase in the size of windows took place. Indeed, sometimes they got too large, and the whole end and part of a side of a big room were glass.

The earlier oriel and bay window developed very rapidly during late Elizabethan and Jacobean times, and in some of the later houses were carried to excess and spoilt the comfort as well as the appearance of the building.

The Tudor chimneys were often very elaborate, and each flue was carried up as a separate shaft in many cases. The shafts were frequently twisted, panelled or banded, and were united at the top by a heavy cap.

In the latter part of the century this elaboration ceased, and as the more formal Italian manner gained ground they were generally built as a plain rectangular shaft with a Classic moulded cap.

At this date local material was still always used, except for some imported brick, and great variety is met in the simple houses of the day which are scattered throughout the country. Stone, brick, and in certain districts half-timber, were the usual fabric for the walls; but chalk and flint and other combinations occur here and there where local conditions were unusual.

Gloucester and Northampton are particularly rich in stone houses, and hundreds of modest buildings stand in that area to-day which are most beautiful examples of the art of the time. Most of these buildings are noted for the steep pitch of their roofs and the great simplicity of their design, in which the shape and spacing of the windows play the most important part. The gables are

KENTWELL HALL.

nearly always straight. In Yorkshire, where the same type is found also in large numbers, the gables are much flatter to suit the large stone slates commonly used in that part of the north. The effect is equally satisfactory; the design is felt to be eminently suitable to the material. In more important houses carved gables are fairly common, and, if not overdone, are effective; but they very often are overdone, and there is a consequent loss of dignity and harmony in the building. These are usually called 'Dutch' gables, and were certainly inspired by foreign examples, although most of them must have been erected by local craftsmen.

In counties like Suffolk, where brick was the general material, the mullions, barges and dressings are usually of stone.

In Surrey, Sussex and Kent the practice of 'tile hanging,' that is, covering the external walls with tiles, came in about this time, although possibly instances may have occurred earlier. It is a very charming and picturesque treatment and has been much imitated in modern times.

The half-timbered houses, of which the most important are in Lancashire and Cheshire, are specially free from foreign influence; and are the most essentially English perhaps of all the houses of this century. There was very little foreign craftsmanship in joinery, as the work of the preceding centuries was of a far higher standard in England than on the Continent, as has been emphasized in the previous chapter; the tradition went on. Consequently the houses of Lancashire retain a Gothic feeling which is very marked.

The half-timber work in the south of England is more classic than that of the north; this is attributable to two causes. Firstly, it was nearer to the new centres of inspiration, and secondly, it was generally of a later date and the Renaissance feeling had had more time to take hold.

In the latter part of the century there were built some of the largest houses in the country.

Holdenby, in Northamptonshire, had a frontage of about 360 feet, which was longer than the main front of the Palace of Blenheim. There were many not much smaller – Theobalds, in Herts, and Knole, in Kent, are two very fine examples. But very large numbers of smaller houses remain. It was a time of great activity in domestic building, and most villages and towns, even in the industrial areas, contain examples of the time.

Fashion changed with great rapidity once the Elizabethan type became established. At Mogus Park, in Essex, a fine house was built in the first half of the century in the style of its time, and was superseded only forty or fifty years later by a larger, more lofty and imposing structure, the older building being incorporated as a separate wing and relegated to the less important functions of the whole. This is one of a large number of such cases.

INTERNAL TREATMENT

The joinery work of this period is infinitely superior to anything found on the Continent. The usual, almost universal, finish was with panels. The general shape of these was rectangular, and the units were small. Usually the panels were plain, but inlaying was practised occasionally, and painting, though in the latter form of decoration we can hardly say to what extent. In the writer's view colour was much more used than is generally supposed, as has been suggested was the case in the work of the previous century.

The fire-place, mantelpiece and overmantel were often worked as part of the panelling, emphasized generally with carving or some sort of application of an order. They were sometimes of stone, sometimes of wood, or a combination of both. Occasionally they were of plaster. Staircases usually, nearly always, were designed with open wells and were of the newel type. There was an enormous variety of treatment in the detail, especially in the balusters. Turned balusters were most common, but square examples were often used, or of a flat wide shape, pierced, and worked at the sides. Sometimes balusters were omitted and their place taken by strapwork or an arcade. The handrails were very heavy and boldly moulded, and the newels, in important cases, richly carved.

The treatment of ceilings underwent rapid development in the middle of the century. Up to this there had been none at all, or, in rare cases, plain boarded ceilings, but now the plaster ceiling came into its own. Plaster ceilings may have been thought of before this time, but none with a decorative treatment had been put up, so far as is known. No authority consulted by the writer makes any reference to plaster in this connection prior to Elizabethan times.

The broad lines of ceilings vary greatly in the best examples that survive, and it is hard to say that any particular plan is typical. Some were segmental or semicircular, others quite flat; while others again were flat in the centre, but had a heavy cove springing from the top of the panelling. The designs were formed with bold mouldings, making a geometrical pattern, the keynote of which was often suggested by a constructional beam overhead. The mouldings often had drops at the intersection. Flat strapwork in all sorts of patterns was another common form, and this is perhaps the most characteristic decoration of the period. Friezes were sometimes, although not very commonly, treated in a similar way.

The hammer-beam roof reached its final development towards the end of the century. In the later examples the main design remained Gothic, as was necessary, as this form of construction was the outcome of Gothic methods. The detail, however, was Renaissance. One of the best examples is that of the Middle Temple, erected about 1570. It is one of the last roofs of the hammer-beam type constructed in England. We find in the next century this type has disappeared and a new method of roofing and ceiling in existence.

SCHOOLS AND COLLEGES

A large number of schools were founded in the sixteenth century. Among the most important of these were Sherborne, Shrewsbury, Bedford and Harrow. These are only a few; there were very many more. Berkhamsted contains some of the best original buildings of the period which exist to-day, and its hall is a fine example of work executed about the middle of the sixteenth century. The boys were taught in the hall; the separate classrooms did not come into use in schools till much later.

The arrangement in the colleges was much the same

LEEDS VILLAGE.

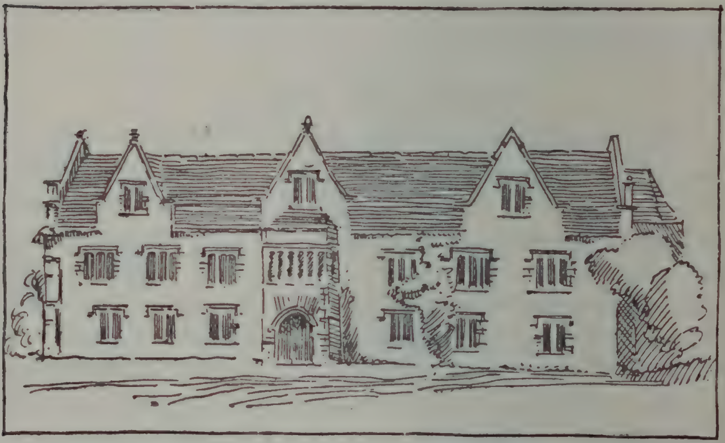
CHENEY COURT.

as, and the general lay-out was similar to, that of the house. The main feature was the hall with its screen, kitchen and other offices all in one wing. The plan was usually quadrangular and the students' rooms occupied the three sides not taken up by the hall. Opposite the hall was the gate-house, over which was placed, very often, the wardens' apartments. The details of the plans naturally varied very much, but this was a typical arrangement.

SCOTLAND AND IRELAND

The Scottish work of the time is of little importance in comparison with that of England. Generally speaking, the Renaissance was later, and a good deal of French influence is traceable, as previously. Very little building of note was carried out in this century, and the only work that calls for comment are those castles erected in the Scottish baronial manner. A number of castles in this peculiarly native style were built in the Elizabethan period. They are quite mediæval in conception, and bear no resemblance to the great English mansions of their time. Their planning is irregular and primitive, and they are specially noted for their remarkable height and the large numbers of circular towers and turrets that are introduced. They are of a much more defensive character than their English contemporaries, as is to be expected when the unsettled state of the country is considered. They all show Renaissance influence in the detail. They were not a growth from anything that had gone before, neither did they lead to anything. They are really more in the nature of freaks than of an expression of national life and social conditions.

In Ireland the work of the century was negligible. Hardly any sixteenth-century remains exist, and it is certain that very little building took place except in a few towns, and of this there is almost no trace left. A few sixteenth-century houses exist, none of which are of any importance compared with those in England, and most of these are ruinous, or were remodelled at a later date, and their original character lost.



CARRICK CASTLE, IRELAND. IRISH ELIZABETHAN.

The earlier castle was still used residentially during this period of house building in England. The population in Scotland and Ireland was small, scattered and poor, and the social and economic conditions were quite unfavourable for building.

CHAPTER NINE

The Renaissance

THE SEVENTEENTH CENTURY

THE architecture of the seventeenth century is closely connected with a small group of men, the most important of whom were Inigo Jones and Sir Christopher Wren. It is impossible to overestimate the amount of influence that was exerted by these two, not only in their own time but right up to the present day.

Inigo Jones was born in 1572, and began his career as a joiner, but soon turned artist. He travelled in Italy and elsewhere in his youth, and subsequently obtained employment at Court as a designer of scenery for masques, many of which were written by the playwright Jonson, who had started as a bricklayer. Jones was made Surveyor to the Prince of Wales in 1610, but no clear idea of what his work was in this capacity can be obtained from records that have been examined. In 1615 James I appointed him Surveyor-General, and it seems at that time Jones was a recognized authority on architecture and art generally. No building before this date can be attributed to him with certainty.

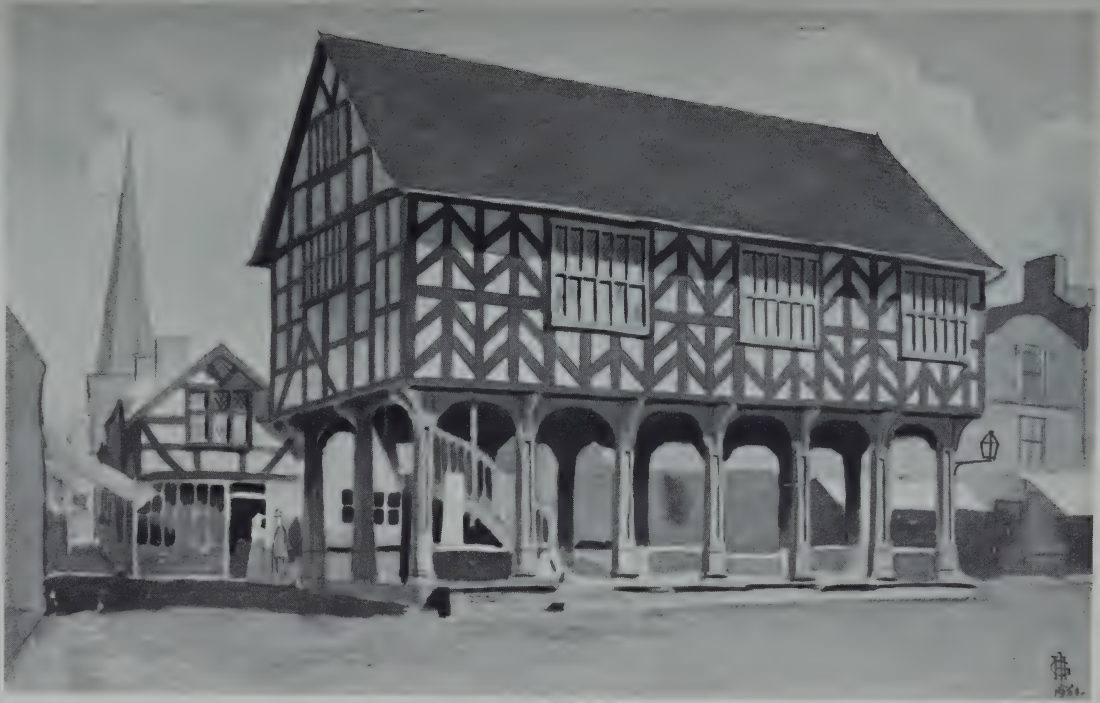
After his appointment as Surveyor-General, Jones designed and carried out a great deal of very important work. His design was entirely different from anything that had been done before in England, and was founded on that of Palladio. Among the many buildings he designed were the Banqueting Hall, Whitehall, which was planned as part of a great palace for the King, the Queen's House at Greenwich, Covent Garden, and St.

Paul's Church. He rebuilt the west front of St. Paul's Cathedral, which was subsequently destroyed in the Great Fire.

Among the best of his country houses was Raynham Hall, Norfolk, the plan of which shows the most complete departure from anything in the late Jacobean period.

MOUSEHOLE, CORNWALL.

Inigo Jones's successor was his old pupil and assistant, John Webb. Webb completed a lot of work which was probably designed by Jones, but it is a matter of dispute



LEDBURY MARKET HALL.

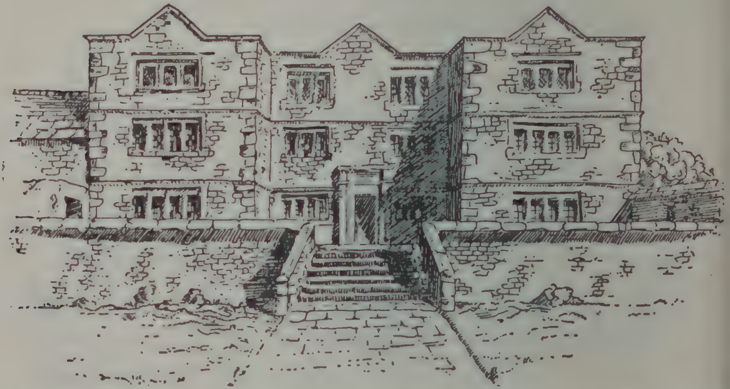
A perfect example of a wooden framed building of the time.

as to how far he had much ability as an architect. Recently he has been given rather a higher place than that to which he had been previously relegated, and it is quite probable that he had a good deal to do with Jones's designs while he was his assistant. However, in a general history the relative merits of the two men need not be too closely considered: it is sufficient that Webb followed the style started by Jones.

LINTHWAITE HALL, YORKS.

The great change that took place in the architecture of the seventeenth century is attributable to one cause – the direct following of the Italian manner. Up to this, building had developed on the lines of local tradition, with occasional importation, through ecclesiastical or military channels, of foreign influence. It had been in its broad aspect a native growth. During the sixteenth century, as has been pointed out, the beginning of the

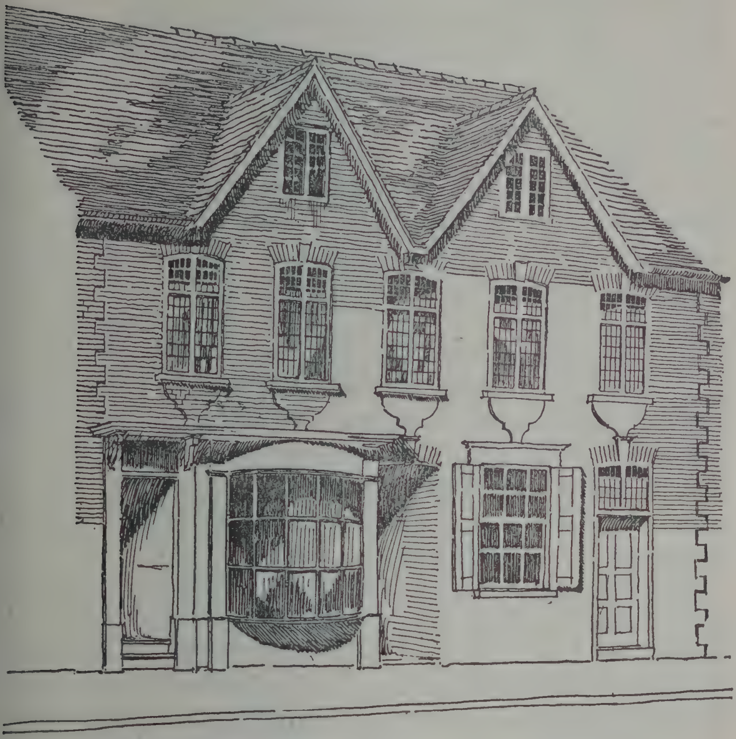
Italian idea had made itself felt: now we get to a point where Italian example was everything. Architecture became Italian: the old English tradition was lost so far as the great buildings were concerned – new principles were put forward by the architects and amateurs of that day.



EYAM HALL, DERBY, *CIRC.* 1680. AN EXAMPLE OF TUDOR FEELING OF LATE DATE.

(By permission of Messrs. B. T. Batsford.)

With this Italian ideal in mind it became clear to all those who were students of the art of building that the Elizabethan and Jacobean efforts were half-hearted and ineffective. They missed the target. Their methods were incomplete: they failed to understand the ideal they were driving at. Architects, craftsmen and artists were all on a different plane; they did not know where they were going; they failed to get anywhere. The surveyor, it is true, mapped out the broad lines of his house, but the craftsman had worked at the detail according to his knowledge, taste and opportunity. The result was the haphazard, picturesque treatment that we find during the sixteenth century. There had been no main control; there had been little cohesion.

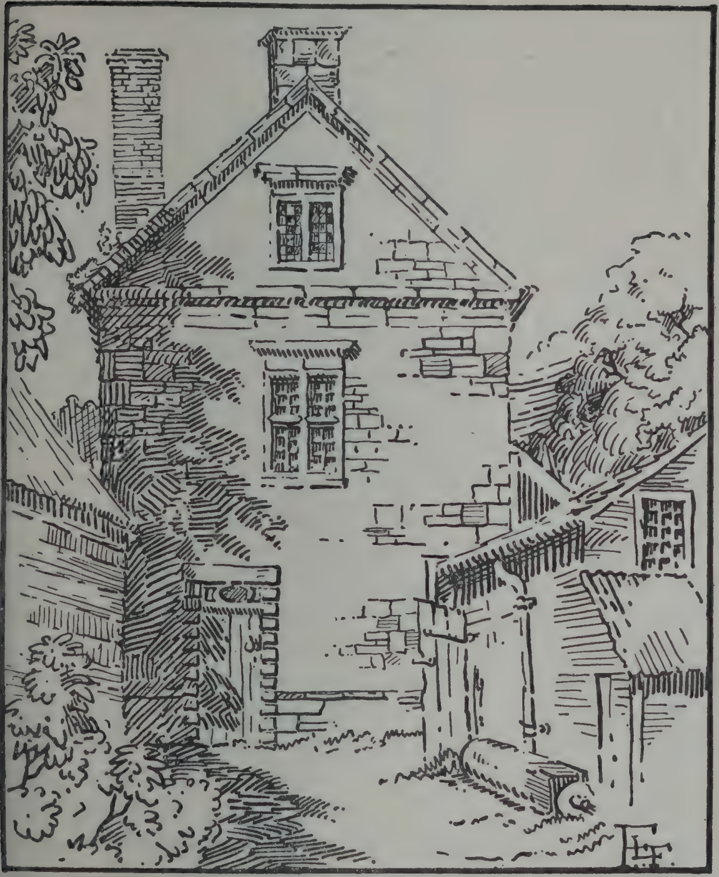


SEVENTEENTH-CENTURY HOUSES, SHREWSBURY.

The new outlook is clearly put forward in certain plans and buildings that survive. Thorpe had hardly mentioned Italian influence or principles of design, but Smithson, who has been referred to in the last chapter, in a number of drawings made during the second decade of the seventeenth century, makes repeated reference to 'Italyan gates, pergular and wyndowes.' Smithson's attention to detail shows a research and knowledge which is far beyond Thorpe's. He was definitely trying to adapt Classic principles to English building methods. The influence of men like Smithson was intensely strong in cultured circles, small at this time. Outside these it was probably nil; and the local builders carried on in ignorance of the new Italian manner and in the traditional methods, as has been pointed out in the previous chapter.

The great men of the time – Jones, Webb and Wren, and their like – were never overwhelmed by their Italian studies and their resultant rules. They broke the rules, or adapted them to suit their purpose. Later in the eighteenth century we shall see how much the academic side and the mere keeping of rules overshadowed individual creative work.

Certain very important changes in plan came about in the time of Inigo Jones, and mainly through the influence of his designs. In the large house we find that the entire ground floor was given up to the living-rooms of the family, which were arranged as a series of vast rooms of a very formal character. A pretty and symmetrical plan overshadowed all idea of a pleasantly arranged house. Formality and geometry overcame do mesticity. The planning was bad: worse in many ways than that of the previous century. Use was subordinated to show: a symmetry, a classic quality of elevation



OLD MANOR COURT, CHESTERTON, WARWICK, ATTRIBUTED TO INIGO JONES.

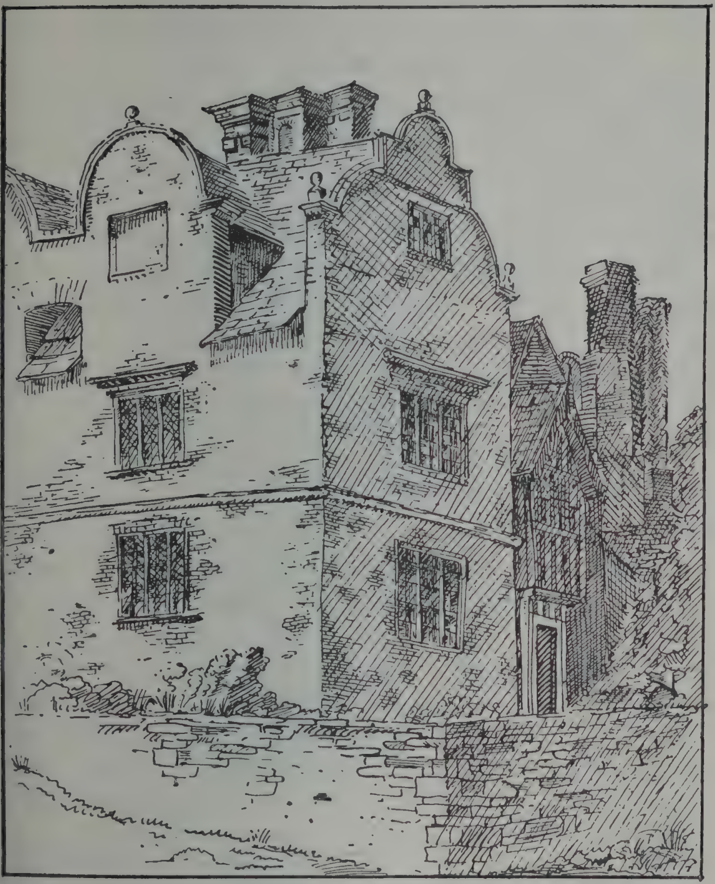
overruled the plan and its sympathetic grouping. Skill there was, great skill, but mathematical rather than artistic. This quality was developed and got more noticeable in the eighteenth century.

To continue our observation of the seventeenth-century plan.

The ground floor was given up, as has been said, to the pretentious living-rooms of the family. The servants, therefore, and all the offices for their use, were pushed into a basement. Some of Smithson's plans show this, but it had come into vogue earlier, as many of Thorpe's plans show such an arrangement. The long gallery was wiped out: it was not needed with the large number of living-rooms that had come into fashion, and the whole of the upper floor was arranged as bedrooms. This applied especially to the moderate-sized house. In the larger houses suites were still found on both floors.

Certain houses show a sort of connecting link between the sixteenth- and seventeenth-century Classic manner. An often-quoted and excellent example of such a one is Raynham Hall, Norfolk. This great house, built between 1630 and 1640 (its exact date is uncertain), is attributed on fairly good evidence to Inigo Jones. Raynham Hall has a plain, straight front with projecting wings at each end. These are crowned with gables in the older manner, but it has sash windows, new at this date, and a bold cornice with good Classic detail. It is a brick house with stone dressings. It has a perfectly symmetrical plan with a central entrance.

Coleshill, Berkshire, also by Jones, but some fifteen years later, has entirely shaken off all trace of Jacobean style. It is pure English Classic. It has no gables, and



NUNUPTON COURT, HEREFORDSHIRE.

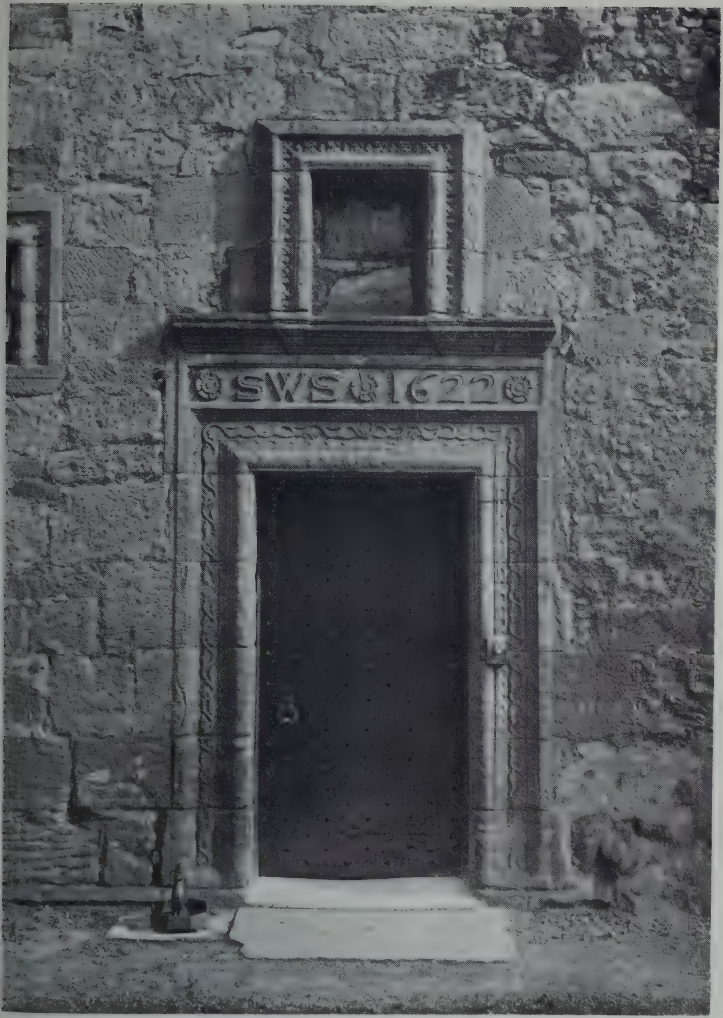
(By permission of Messrs. B. T. Batsford.)

is covered with a simple hipped roof which descends to a deep cornice with a heavy projection. It has large chimney-stacks, symmetrically arranged, but, more important than all, its attic story is lighted by dormer windows of wood in the roof, and not carried up as part of the wall in stone or brick. The dormer has become part of the roof instead of part of the wall – a radical change in design and a complete breakaway from sixteenth-century and traditional English practice.

The two most important changes in external treatment that came in with the English Classic movement were the dropping of gables and the introduction of the sash window. The omission of gables simplified the roof plan, and roofs were much less broken up than formerly. The sash window was in some ways more difficult to handle than the older mullioned type. It did not lend itself readily to bays or oriels; and the windows on the same floor of a front had to be all of one size. Careful and accurate fenestration, therefore, became a very important factor in design. Inigo Jones was very successful in his treatment of this problem.

Inigo Jones's houses vary very much in the quality of their detail. Generally speaking, his country houses lack the refinement of those near London, which is probably due to the fact that he was unable to give as much personal attention to the former as to the latter.

Webb carried on Jones's tradition, and was himself Deputy-Surveyor to the King. He never attained the highest office, however, and when Sir John Denham, the Surveyor-General, died in 1668, Wren was appointed to fill the vacancy. Webb gave up practice and retired to the country.



[Photo by Valentine & Sons.

THE DOORWAY, ROSSLYN CASTLE.

Wren was the son of a clergyman, and his uncle was Bishop of Ely. He was born in 1632. His biographers have given him credit for showing remarkable mathematical skill at a very early age. Nothing in his youthful career gave evidence of his genius for architecture. He was a Fellow of All Souls at twenty-one, and in 1661 was Professor of Astronomy at Oxford University. In the same year he was appointed an assistant to Sir John Denham, the Surveyor-General. Two years later we find him carrying out important work, as in 1663 he built the chapel at Pembroke, Cambridge. In the same year he designed the Sheldonian Theatre, Oxford, but this building was not completed until some years later.

Somewhere about this time Wren spent a long visit in France, where he worked hard at measuring and sketching. He did not get to Italy, which was rather extraordinary when we consider the outlook of the day.

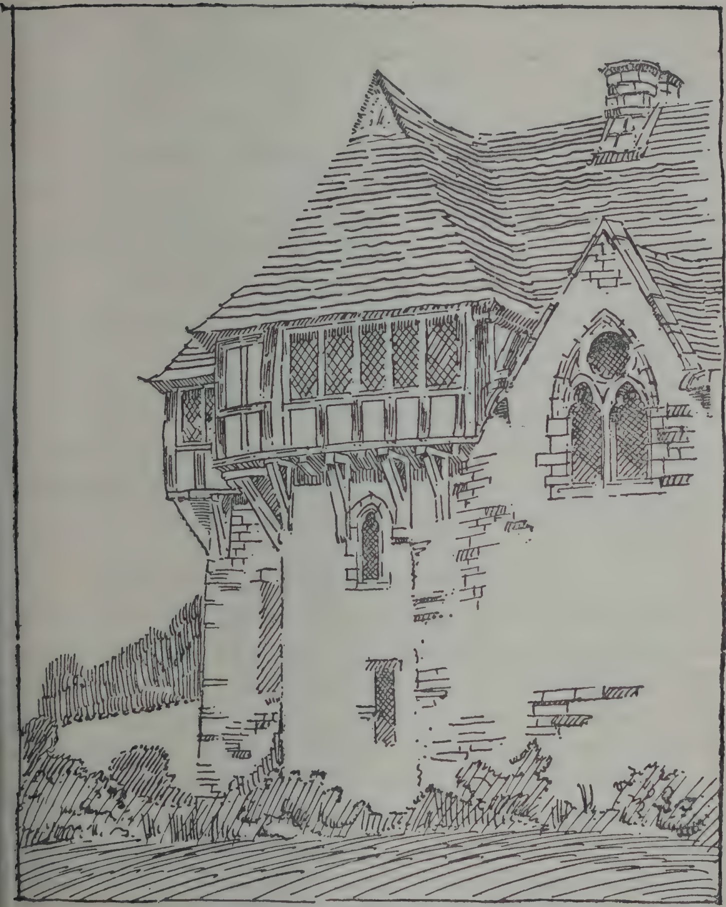
The Great Fire was Wren's chance, and two years after it took place (1666) he was appointed Surveyor-General. The rebuilding of London was to a great extent under his control. He produced a plan for an entire rebuilding – what we should now call a 'town plan' – but this was too costly and did not materialize.

Wren came into his full practice at the beginning of the last quarter of the seventeenth century, at a time most propitious and fortunate for himself. Master masons and craftsmen all over the country had by now accepted the Classic manner, and design and detail were beginning to be really understood. Inigo Jones had found it necessary to issue the most detailed instructions as to the execution of his work, but Wren was relieved from much of this owing to the improved knowledge of the craftsmen of his day. He had men like Grinling Gibbons to work for him – men who could be safely left to work out their detail on the lines of their own knowledge and genius. Had Wren lived fifty years earlier, it is impossible to think he would have achieved anything approaching what he did. In London, no doubt, matters were easy for him, as large numbers of workmen, trained in Classic proportions, were available; but in the provinces his work needed more attention to detail. In connection with the building of Trinity College Library he evidently had doubts as to the masons, as he wrote to say that he 'would willingly take a further pains to give all the mouldings in great; we are scrupulous in small matters.'

In 1668 Wren was instructed to prepare designs for St. Paul's, as it was decided that the old building could not be restored.

The problem that confronted him was as difficult a one as an architect could meet. The Classic style had taken a firm hold, and Gothic was forgotten: yet a cathedral in every one's mind meant a cruciform building with choir, nave and transepts. A Classic plan was unknown in England. Wren had not been in Italy and was not familiar with any of the great Italian churches and cathedrals except from drawings. His experience was very limited indeed. We do not know to what extent he had studied architecture in his youth, but at the time of his receiving the commission for St. Paul's he had only had seven years' experience in all in the professional study of architecture. When we think of this his performance is an amazing one.

Wren prepared several plans for St. Paul's. The first



STOKESAY, TWELFTH AND THIRTEENTH CENTURIES, WITH SEVENTEENTH-CENTURY ADDITIONS.

was octagonal, and the model is to be seen in the cathedral to-day. The final building, as it now exists, was the result of considerable modification of the plans as the work progressed. There is no finer or more beautiful dome than that of St. Paul's: seen either from a distance or from close by it is equally satisfying. The dome, of course, is double, and the lower dome, which is seen from inside the church, is of brick, while the upper dome at a much higher level is of timber covered with lead. This construction has been the object of a good deal of severe criticism; but few moderns will condemn it as false construction. It involves exactly the same principle as placing a ceiling below a roof, or a stone-vaulted roof beneath one of slate, as in a mediæval cathedral. In the view of most people, including that of the writer, this method of construction is absolutely justified both on constructional and æsthetic grounds.

WREN'S CHURCHES

Just before it was decided to rebuild St. Paul's, Parliament had passed an Act providing for the rebuilding of nearly forty of London's churches. Wren designed the majority of these – a formidable task, and one of many peculiar difficulties. Many of the sites were ill-shaped and too small; it was difficult to obtain money; and the extreme Protestant attitude of the day in regard to arrangement of plan and conduct of the service made the task one requiring the greatest skill to obtain a satisfactory solution on æsthetic grounds.

The main idea at the time was that churches should be essentially congregational. There was no desire for a chancel to separate the clergy from the people, and the communion table was placed in the church with only a rail dividing it from the seating accommodation. Most of Wren's churches are satisfactory without being, perhaps, really great architecture. They have nearly all got a strong monumental quality, and are entirely without fussiness. Most of the plans are rectangular, in which the width is more than half the length – some are almost, or quite, square. One or two plans are rather in the nature of freaks, and are ingenious solutions of problems occasioned by awkward sites. St. Benetfink's, in Threadneedle Street (now demolished), was such a case. The site here was most irregular, hemmed in on three sides by houses, with only a very small frontage. Wren got over the difficulty by a ten-sided building, of which the centre sides are shorter than the others, the plan really suggesting an oval rather than a polygon. The block plan, showing how the church was fitted on to the site, illustrates a remarkable example of Wren's ingenuity and imagination. Owing to lack of space many of these churches had galleries, and these are nearly always successfully treated. The roofs were either barrel-vaulted or flat, and were in most cases panelled.

The great charm of these churches is in their dignity and restraint, and pleasantly arranged and proportioned detail. The joinery work of pews, organ cases, pulpits, etc., is nearly always beautiful even when quite plain.

Many of these churches were domed, and it is in these, perhaps, that he was at his best.

Wren's external treatment was usually very simple – he depended, rightly, on good proportion and fenestration for his effects. No one has ever more fully realized the value of restraint. Most of his churches were of brick with Portland stone dressings, and where there is richness of detail it was reserved for the towers and spires. Wren is credited with about thirty towers in London, about one third of which were of stone, and the rest timber and lead. That of the Church of St. Bride, in Fleet Street, is usually referred to as his most successful work, but in the writer's view that of St. Mary-le-Bow is a much better design, and is Wren's masterpiece. It is difficult to conceive a more perfectly balanced work, or one in which the detail is so appropriate, logical and graceful.

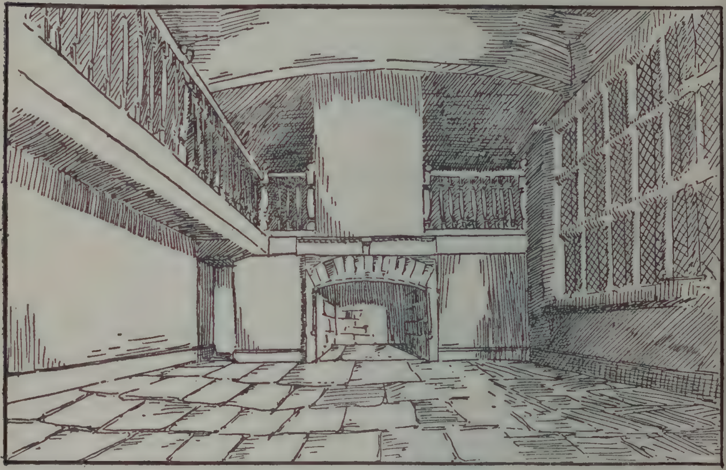
Wren made one or two flights into Gothic, and his originally treated fan vault in St. Mary's, Aldermary, suggests that he could have worked in the Gothic manner as readily and successfully as in the Classic. Wren died at ninety years of age in 1723. He had achieved the feat of drawing the conflicting elements in architecture into line and evolving, or rather consolidating, an English Renaissance style. It is uncertain how many of the London churches attributed to Wren are, in fact, by him. There is an enormous amount of literature on the subject, and the authorities vary greatly in their estimates. Some put the number at over fifty: it was certainly over twenty-five. But even if he only actually planned the lesser number there is no doubt that he directly, or through his example, influenced the bulk of the others built during his life and many built after his death.

The Civil War stopped building for some time in the middle of the century, and indeed led to the destruction of many fine castles and mansions. Directly after the

WORMLEIGHTON MANOR, WARWICKSHIRE.

(By permission of Messrs. B. T. Batsford.)

Restoration activity again became pronounced, and architecture again took a prominent place among the studies of educated people. This interest continued throughout the eighteenth century and during the early part of the nineteenth. At the beginning of the industrial era in England it died out, and the causes of this decay are dealt with in Chapter Eleven.



OLD HALL, ELLAND, YORKS.

The influence of Inigo Jones was largely responsible for the revival of interest, and people studied architecture mainly through books published in Italy. Several Englishmen of letters wrote books on the subject, all based on classic work and authorities. Sir Henry Wotton's *Elements of Architecture* was a sound, scholarly work, although there is much in it that we do not agree with to-day. Evelyn, the diarist, wrote a book based largely on the work of Vitruvius, and in which he condemns all Gothic art in no uncertain manner – 'A certain fantastical and licentious manner of building.' He dismissed the English, and indeed the Continental cathedrals also, as 'mountains of stone – not worthy of the name of architecture.'

HOLDSWORTH HOUSE, HALIFAX.

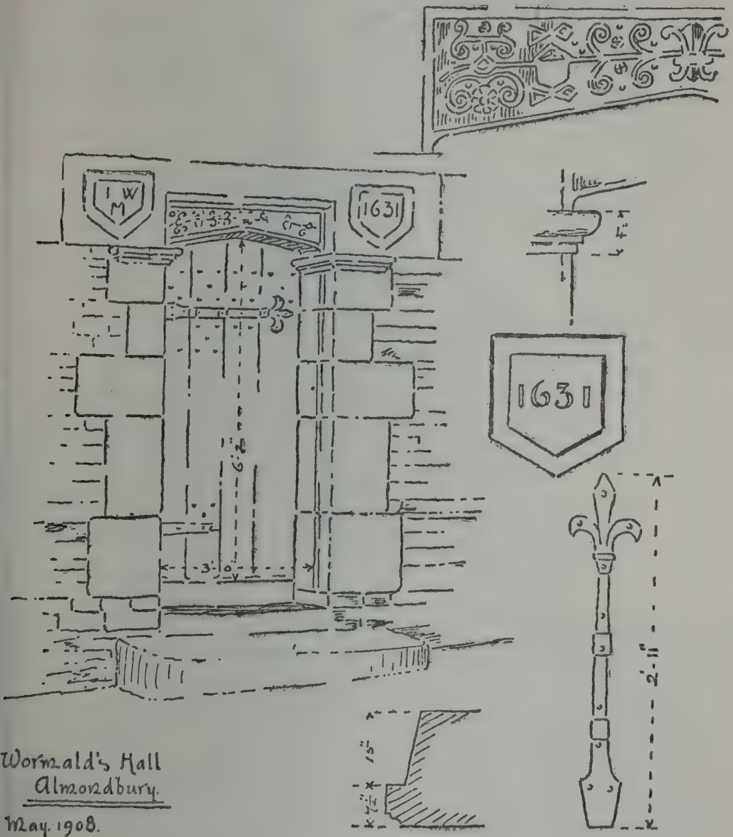
These writers then helped enormously to popularize the study of architecture, and as Gothic work was outside the pale, Classic or Italian became almost synonymous with architecture in the outlook of the day. It became a study like music or painting. Large numbers of books, many very absurd, were published, giving rules and regulations of the most definite description for the treatment of all classes of buildings.

As has been said, however, Wren did not fall into the mistake of working everything out by a strict set of rules. Among the two most noteworthy of his domestic buildings are Greenwich Hospital and Hampton Court. The former had been started by Jones and continued by Webb, and it is not altogether clear how much is purely Wren's design – some of his work is clearly a repetition of what already existed when he came on the scene. The whole conception, however, is one of the finest buildings in the country. Hampton Court is different in treatment – it is much more domestic. Greenwich is principally of stone, Hampton Court of brick with stone dressings. The massing of the stone is specially to be noted in the elevations – there is none of the restless effect so often produced when brick and stone are used together.

Some of the detail in both cases is questionable, and the pediments applied against the attic stories and not on the sky-line are definitely bad design. Perhaps the most individual and charming piece of the design at Hampton Court is the Ionic colonnade at the Royal entrance.

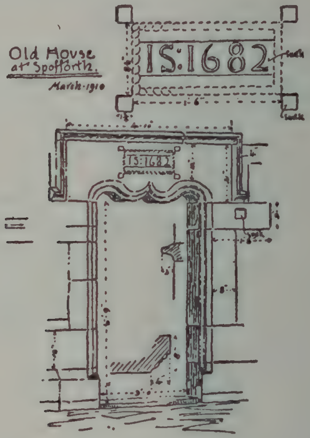
Towards the end of the century we find a very different treatment in both interior and exterior to what existed at the beginning. The general characteristics have been discussed at the beginning of this chapter, but the internal detail requires some special consideration.

The entrance hall of a large house was usually treated in a formal classic manner with an order either the full height of the room, or about three-quarters of the height with an attic space above it. A new type of ceiling entirely different from those of Jacobean times has come in. This was heavily moulded and arranged in geometrical panels. The walls were still usually panelled in



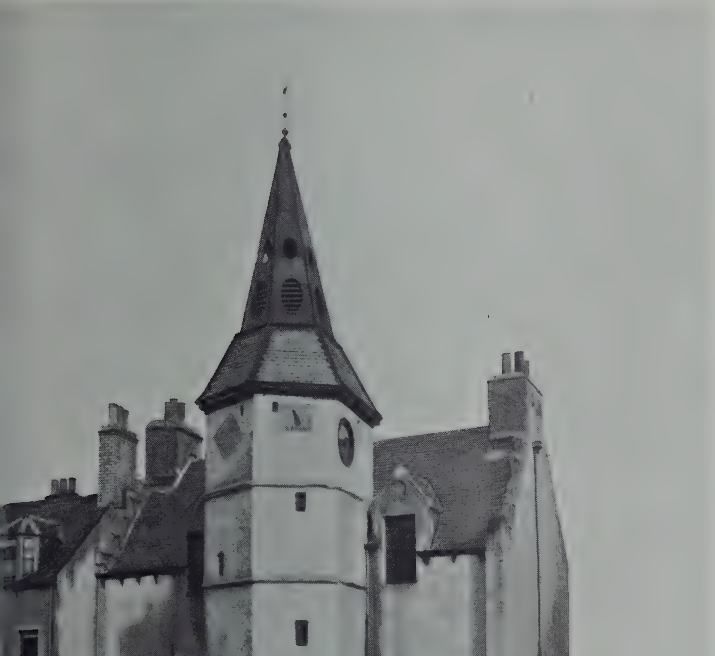
Wormald's Hall
Almondbury.
May. 1908.

wood, but the panels were very different from those at the beginning of the century. They were very much larger – in the case of an order one panel filled the whole space between two columns. Other wood besides oak was used for this work – much of it was native pine, and the panels naturally were built up of several pieces. The whole of the woodwork in such a case was painted. The doors had elaborate carvings with bold projecting mouldings, and usually had pediments over them. Important doors often had a small order applied as a casing. Floors were often of black and white or coloured marble.



Walls were not always panelled even in the principal rooms. Evelyn, writing in 1665, says, ‘Supped at my Lady Mordaunt’s where was a room hung with pintado [printed cotton] full of figures great and small.’

The lower rooms were rather roughly plastered in colour or whitewashed. These often had panelled dados: all the skirtings, architraves, etc., were heavily moulded and deeply projecting.



TOWN HALL, DUNBAR.

COLLEGES AND SCHOOLS AND THEATRES

Among the many colleges and schools built in this century were Oriel, Brasenose and Wadham (Oxford), St. Catharine's (Cambridge), the Hall at Winchester, and the Bluecoat School, Westminster. These do not call for any special comment. The plans followed the same general lines as the great houses of their time, and we find the same general development to pure Classic taking place throughout the century. While many of the plans, elevations and details are interesting, there is none that demands any special notice in a general history.

The theatres, however, altered very much in character from those of the previous century: not only in detail, which of course was natural, but in the general lay-out. Even in 1600 the theatre was a most primitive building. An original sketch by Johannes de Witt, made in that year of the Swan Theatre in Southwark, shows a circular building, the centre open to the sky and without seats. The roofed portion runs round the circumference and contains three tiers of galleries. Other records of about the same date show that this plan was the usual one at that time. The stage projected into the pit, and was only half covered by a roof. At the back of the stage and on a level with the second gallery was situated a row of six boxes. The actors entered by doors below these boxes. Such a theatre, but octagonal, was the Globe, where Shakespeare played: it was rebuilt according to most authorities on a circular plan early in the seventeenth century.

It is thought by most authorities who have made a study of theatre development that the early plans were modelled on the galleried courtyards of inns, where plays were often given in the sixteenth century. The pit of these early theatres was used for bear-baiting and similar shows, and probably derives its name from this source. The scenery at this time was of the most simple description; indeed, it seems often to have consisted simply of a label hung at the back with a notice stating what the scene represented.

There does not seem to have been much change till after the Restoration, when two theatres started again in London (they had all except one been closed during the Commonwealth), the King's House and the Duke's Theatre. The latter has been attributed to Wren, but there is no real evidence of this. It was a great step forward from the Globe and the others of the early part of the century. It appears to have been rectangular on plan with the whole of one end occupied by the stage. It had a proscenium practically similar to a modern theatre, although the stage projected slightly in front of the frame. The orchestra was placed in the present position, and part of the pit certainly, and possibly the whole of it, was roofed and covered with a flat ceiling. There were three tiers of boxes, or galleries, as in the older theatres, and the pit seems to have been provided with benches.

The scenery became much more elaborate, and at the end of the century it had made tremendous strides.

LIBRARIES

The earliest English libraries were monastic and probably Benedictine. This order laid down a code of rules for the care of MSS. The first libraries proper seem to have been long narrow rooms over the cloisters with a series of windows their whole length. Between the windows were high sloping desks with seats. To these desks the books were chained. The number of books in these libraries of, say, the fifteenth century, was very small. In *The Care of Books* (Clarke) it is stated that the University Library in 1424 contained only 122 volumes in all.

When printing was established by Caxton in 1476 the number of books, of course, multiplied considerably, and many of the old desks had additional shelves added. This type of library is sometimes referred to as a 'stall' library, and lasted till the end of the seventeenth century, although a newer type with which it overlapped came in early in the century: this was the 'wall-case' library. Wall cases were used by Wren in the Bodleian Library in 1612. The wall cases were combined with stalls which made a series of bays down the sides of the room – a very convenient arrangement. Each bay had a table and seats where the books could be studied; chaining had ceased by this date. This is probably the earliest example of a wall-case library; and that at Durham Cathedral, built in the last quarter of the century, is one of the last of the stall type: certainly the last that is still in existence.

CRAFTSMANSHIP

The craftsmanship in all trades in the seventeenth century reached a very high standard. Masonry and brickwork are unsurpassed by that of any other period, and an extraordinarily high level of work is found in those examples which we have an opportunity of examining to-day.

Wood-carving, under the genius of Grinling Gibbons, developed into a school which is world-famous, and which is still an important influence on our architecture. Woodwork generally, especially the panelling in oak, cedar, or fir, and occasionally less known woods, is remarkable for its skill and honesty of construction quite apart from the charm of the

WELLESBOURNE: A VERY LATE SEVENTEENTH-CENTURY HOUSE.

design of much of the work of the second half of the century.

Smith's work reached a level beyond anything that had been previously attained. Window-fastenings, hinges, grate fittings, etc., survive in large quantities, and even in the humble examples from small houses we find a simple charm of design and skill in craft. Cast iron was understood but not much used; wrought iron still held the field, and quite a large amount of the work that remains was certainly from the hands of local smiths in the small towns and villages.

SEVENTEENTH-CENTURY COTTAGES, PENZANCE.

Decorative plaster, the general characteristics of which have been dealt with earlier in this chapter, developed with extraordinary rapidity and followed the general classic tendency. This work was nearly all modelled in situ, and although it is difficult to prove that the enrichments were never cast at this time, yet it is clear that this method was very rare. The plasterers of this time were more than craftsmen; they were artists, and they designed much of their own work. No doubt working under an architect of Wren's standing he was consulted and had a say in the design, but in the provinces, in the less important houses, one can assume that the artist-plasterer was given a fairly free hand.

Plastering is a very old form of decoration and was in use long before the examples at Pompeii were executed. Methods for mixing the material are described by several of the classic writers, including Pliny and Vitruvius. Fig juice and bullock's blood are mentioned among other early ingredients to improve the quality. The English mediæval builders are usually supposed to have used beer; and the mixing of horse-hair with the material was practised in the sixteenth century, if not earlier. Wren used marble chippings ground into powder.

English plaster decoration of the seventeenth century, while of first-rate craftsmanship, was not altogether satisfying in design. In Wren's time the plaster often suggests the work of the wood-carver or sculptor – the plasticity of the medium was not fully grasped. Decorative plaster did not reach its highest point until well on into the next century.

Ceiling and mural painting took on a new importance in the general scheme of decoration in this period. In the chapters on Gothic work it has been described how freely colour was employed and how the early churches were decorated with paintings on the walls. Now, however, we find the art of the painter applied to domestic architecture.

Inigo Jones designed most of his ceilings in panels, and it seems quite clear that he intended them to be filled with paintings. Rubens painted the ceiling in the Banqueting Hall at Whitehall; and Van Dyck was to have painted the walls with subjects illustrating the history of the Order of the Garter, but this project did not materialize.

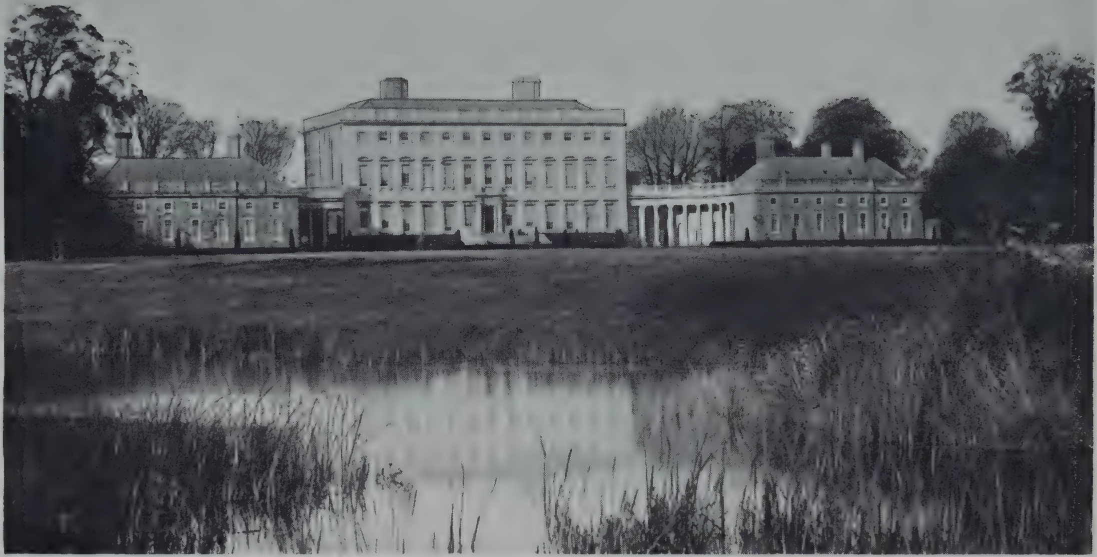
A Dutch artist, John de Critz, was the official painter to Charles I and established a considerable reputation. He decorated the dining-room at Wilton built by Inigo Jones. Another artist who also worked at Wilton was Pierce, who had been assistant to Van Dyck. During the Commonwealth most of the foreign artists found no occupation and left England; but after the Restoration there was a renewed vigour, and this decorative work made great strides in England. All the great houses built in the second half of the seventeenth century were decorated with paintings. The majority of these have suffered badly from the ravages of time and neglect. Dampness and decay have carried out their task, and few paintings of the time exist as in their original condition. The Rubens ceiling in Whitehall has been restored several times and probably is quite unlike the original – this is one of many such cases. Another Dutch artist of considerable fame was Dankers. He painted Pepys' dining-room with copies of works already carried out for the King.

Perhaps the most celebrated of all the seventeenth-century decorative painters was Verrio. Among other great houses where he worked were Windsor, Chatsworth, Burleigh, and Lord Arlington's mansion at Euston. With him worked the Frenchman Laquerre. This pair did not confine themselves to decorating panels, but spread their designs from ceilings to walls in an exuberance which even the artificial taste of the day found ridiculous, and which aroused a good deal of hostility and satire. This phase of decoration, directly copied from Italy, did not last very long, and during the next century mural painting took a much less prominent part in schemes of decoration, and displayed a far better sense of balance and harmony in relation to the whole scheme.

LIGHTING ARRANGEMENTS

The lighting arrangements of rooms is a subject of considerable interest and merits some little consideration in relation to domestic architecture.

Candelabra existed in mediæval times, but we do not know of many in England that are earlier than the middle of the seventeenth century. Indeed they were probably very rare before then, although common in Holland by the beginning of the century. Directly after the Restoration they became general, and were of brass, glass or wood, with one, two or three tiers of lights. The glass examples are rare and are much more characteristic of the eighteenth century. This must have been a question of taste, as glass chandeliers were



CASTLETOWN, IRELAND.

An 18th century mansion.

comparatively common in Italy even in the sixteenth century, and were certainly well known in England in the seventeenth. Sconces were in use at the same time, and their general use is certainly prior to that of candelabra.

Outside of England the work of the seventeenth century in the British Isles is insignificant. Scotland has a good many houses still in existence erected during that time, but no one of these can compare in size or importance with the great English mansions of the period. As is to be expected, the work is generally cruder than in England, and the influence more French than Italian.

Ireland has extraordinarily few buildings of the time: even in Dublin there are not to-day more than half a dozen houses which were built prior to 1700; and those that do exist have all undergone extensive alterations. The castle was still in use as a residence, and the poverty of the country and its unsettled state precluded domestic building development on anything like the scale of the sister island.

CHAPTER TEN

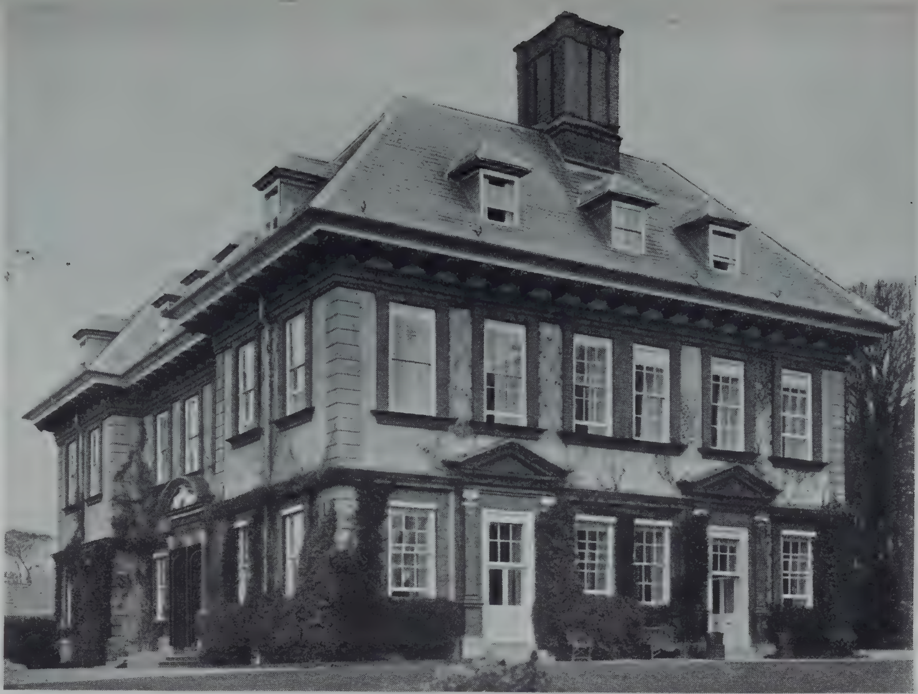
The Renaissance

THE EIGHTEENTH CENTURY

SOCIAL CONSIDERATIONS

THE eighteenth century was a time of great events and very important developments in building. England entered into the transition stage in which she was changing from a purely agricultural country into an industrial one. Wars were waged which laid the foundations of what is called the British Empire, which is yet in a state of flux. Hosts of colonists went to new countries and sent home raw materials which were exchanged for goods made at home. Machinery was developed to increase output, and as the mills and factories grew, the old methods of weaving in the home, and other crafts, went by the board. The operatives had to come to the factory, and it was necessary to build houses for these people close to the works. There was little regard for the working class and they were exploited by the great mill-owners and other employers in a way that is now almost incredible. This all happened towards the close of the century when steam-power was rapidly ousting wind- and water-mills. The industrial town had its foundations securely laid before the close of the eighteenth century; although, indeed, its full effects were not felt till later on. This is discussed in the chapter on the Nineteenth Century.

The many wars of the period were a serious drain on the manhood of the country, and at the same time they interfered with imports from the Continent. The



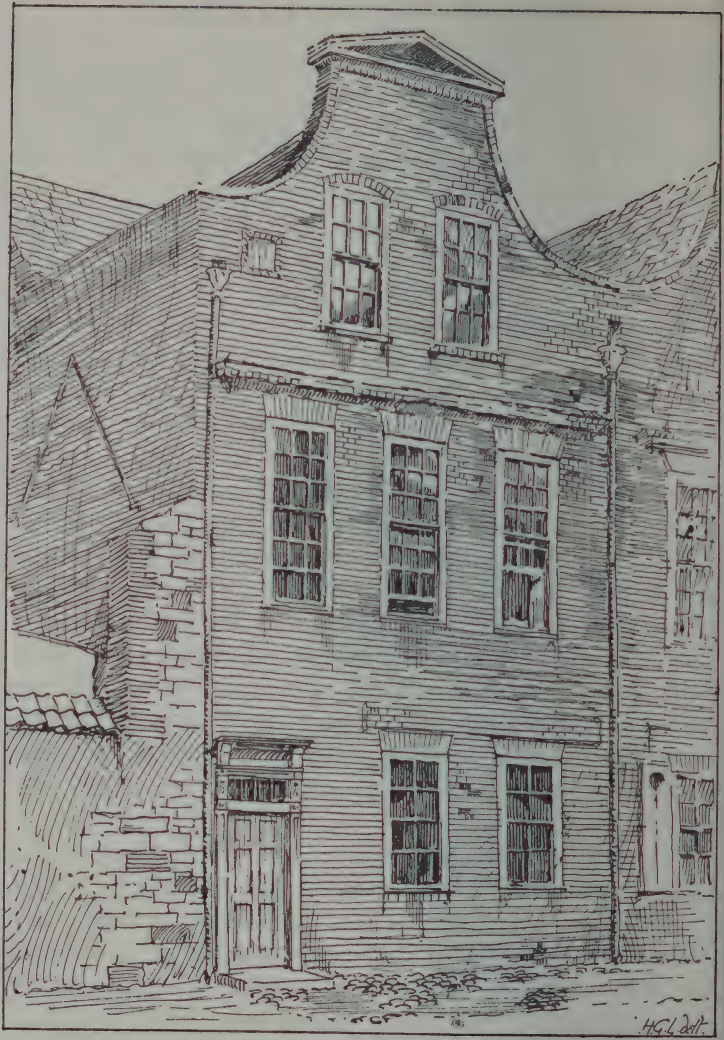
BEAULIEU, IRELAND.

An early 18th century house.

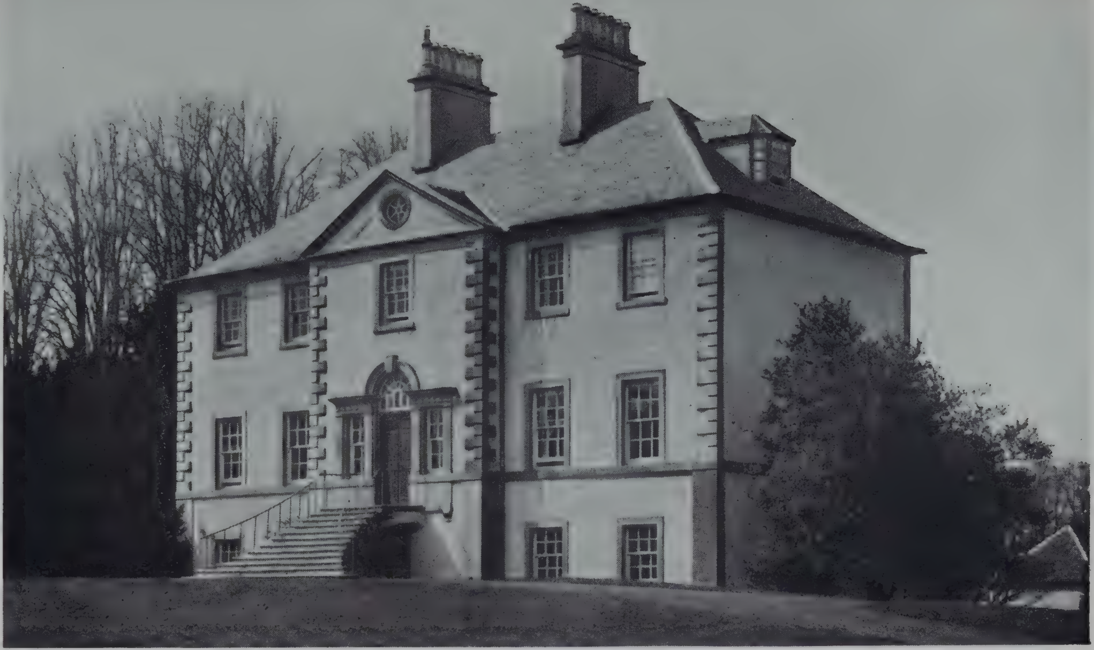
growth of industries drew men from rural to town districts, and farmers were faced with the problem of growing more food with an ever-decreasing supply of labour. This two-hundred-year-old problem is still with us and has never been solved.

Among the many complications which arose from the social state of the time was a great increase in the value of land. Big landowners found themselves, very often, enormously better off than their ancestors had been. Rents rose to an extent that made many small landlords rich men. This gave rise to the building of fine houses all over the country, most of which stand to-day as evidence of the prosperity of the landed class of the Georgian period. Many of these houses, which are dealt with in some detail later in this chapter, are of a pretentious sort, and show a regard for display, on the part of their builders, rather than for comfort. It is in the smaller houses of the time that we find the most romantic, attractive and typically English house. The good, small Georgian house, examples of which are scattered throughout the length and breadth of the land, is as native a thing, as suitable to the soil, as those of the Gothic or Tudor periods. They are essentially British.

It is not here suggested that there are not many fine examples of great houses and public buildings of this time. There are. The public buildings, indeed, are among the best that British architecture on the grand scale has produced, and are still lessons to us of planning and designing in the monumental manner. There is a nobility and spaciousness about many of them which we cannot surpass, and indeed rival with difficulty, to-day.



VERY EARLY EIGHTEENTH-CENTURY HOUSES, DUBLIN.



DUCHAL HOUSE.

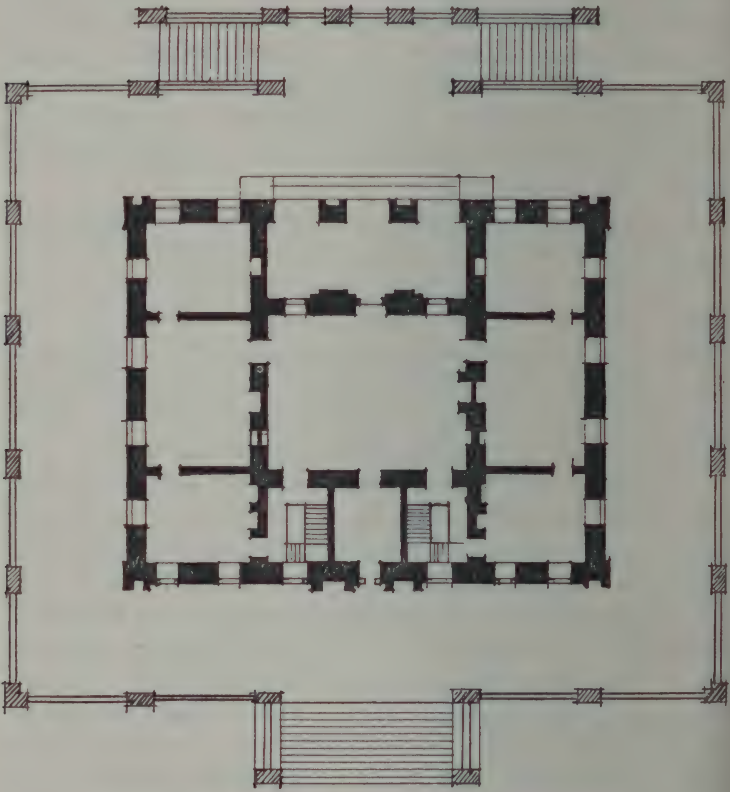
A small, Scottish Georgian house.

THE ARCHITECTS

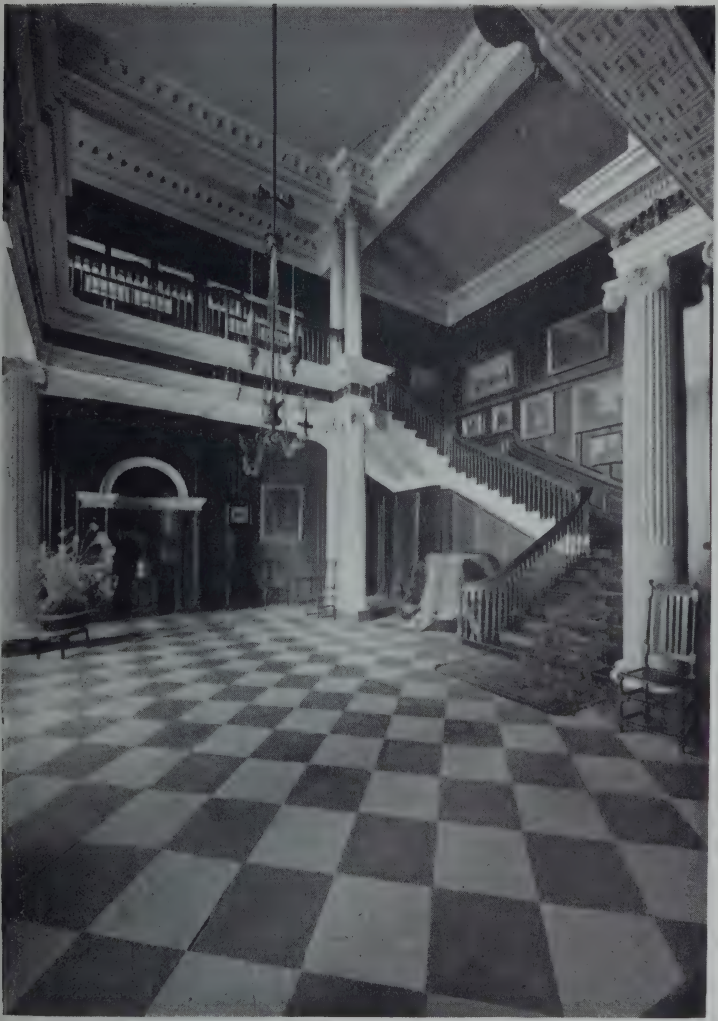
Many of the eighteenth-century architects were giants, and their ideas and achievements are the source of the keenest inspiration to us. To appreciate the aims of the eighteenth-century architects it is necessary to consider their sources of architectural inspiration, as well as the social conditions of the country, already briefly discussed.

During the eighteenth century many distinguished architects arose whose names are associated with some of the most important of the great buildings of the time, many of which survive to-day, and are familiar alike to those who dwell in town or country. Vanbrugh, Kent, Hawksmoor, Gibbs, Wood and Campbell were the most important of those who carried on the Wren tradition, and developed his school of design.

Vanbrugh and Kent are the two best known to-day, and some mention must be made of their lives and training. Vanbrugh is supposed to have been born in 1666, but where and how he was trained in his profession is unknown. He started his career as an officer in the army. He was in France as a very young man and spent his time studying architecture and matters theatrical. He was well known as a playwright before he had established any reputation as an architect. His two great works, Blenheim and Castle Howard, are undoubtedly those by which he is best known, but it is questionable whether other smaller houses of his are not really more worthy of our notice. Hawksmoor was associated with Vanbrugh at Blenheim and elsewhere, and the two men were in close sympathy. Hawksmoor had been a pupil of Wren, and while a skilful designer his detail is often weak and uncertain, which is a quality found in most of Wren's pupils. He had a streak of eccentricity which sometimes upsets the balance of his elevations greatly to their disadvantage.



PLAN OF A HOUSE BUILT BY INIGO JONES.



A HALL OF THE MIDDLE PERIOD.

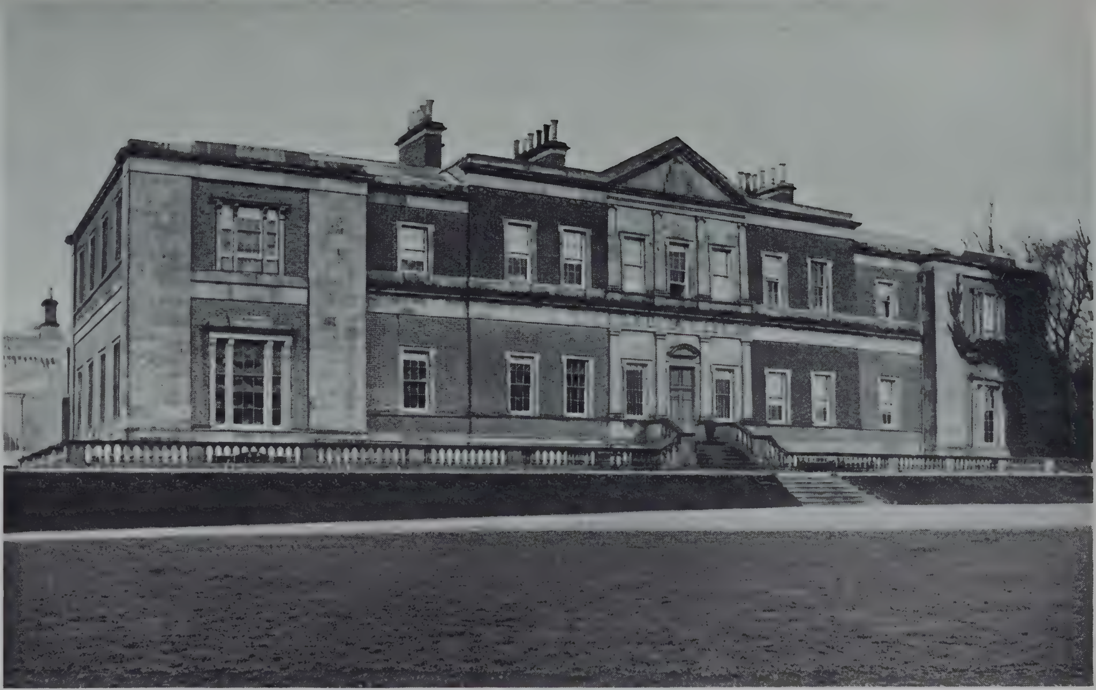
His practical training and experience, however, were without doubt of great assistance to Vanbrugh, who was probably lacking in these qualities.

Sir Joshua Reynolds was a great admirer of Vanbrugh's work. He says of him: 'In the buildings of Vanbrugh, who was a poet as well as an architect, there is a greater display of imagination than we shall find perhaps in any other.' Not all contemporary opinion was so enthusiastic. The Duchess of Marlborough dismissed him before he had completed Blenheim; and Pope and Swift abused him in severe language. However, Reynolds' view may be accepted as representing the best judgment of the time, and we cannot but feel he is right in giving high praise to Vanbrugh's art. William Kent, perhaps the greatest of the early eighteenth-century architects, started as a painter. He was born in 1684, and when a young man was encouraged by Lord Burlington to take up the practice of architecture. Kent's best known work is the Horse Guards, a magnificent and most satisfactory building. Its grouping, general mass, and detail are as fine a piece of Renaissance architecture as exists. He also designed Devonshire House, the Treasury Buildings, and Hockham Hall, in Norfolk. He worked on part of Burlington House, although it is impossible to fix his exact contribution to it, as the Earl of Burlington and Colin Campbell, an architect mentioned earlier in this chapter, both had a good deal to say to it.

The two most important architects at the close of the century were Sir William Chambers and Robert Adam. Their methods and outlook were very different.

Chambers followed the lines of the old Wren school. Many well-known buildings are by him, among which the most famous is Somerset House. This takes a place among the most successful buildings of the century. Although the Strand elevation is very plain, the open vestibule that gives on to the courtyard is a masterly piece of design in all respects. The river front is, of course, the important elevation, and even now, cut across by the Embankment as it is, is one of the most satisfactory and distinguished of London's buildings.

The Adam brothers did not attempt to follow the older tradition. They were more or less revolutionaries. Robert, in the year 1760, published his book, *Diocletian's Palace at Spalatro*, which had an important influence on work of the time. The Adams had hosts of imitators, and their activities extended into every branch of decoration and furniture. Their detail is very refined and often too small for the building, and the effect in a big room is fussy and finicky. That they could design in a big way is clear from certain buildings for which they are responsible, notably Edinburgh University and Luton Park House in Bedfordshire. Generally, however, their work is marked by the smallness of the detail. They were at the best in the small house and their decoration in many such cases is charming and in excellent scale with the whole. A great deal of the work of their imitators was very inferior, and prolific in output as they were, the Adams could not have designed a hundredth part of the work attributed to them.



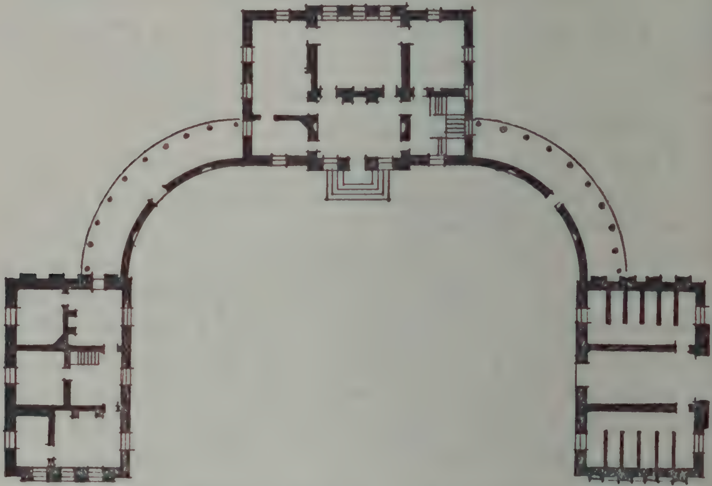
BALLYHAISE, CAVAN.

BOOKS OF THE TIME

During the eighteenth century there were a large number of books published on design. Many of these gave most precise rules which read very oddly to-day. Architecture became popular again and every gentleman, and indeed lady, was supposed to know something of the art, especially of ancient Rome and Italian Renaissance. Young men of position did the grand tour and came back with a good deal of superficial knowledge of classic forms and details.

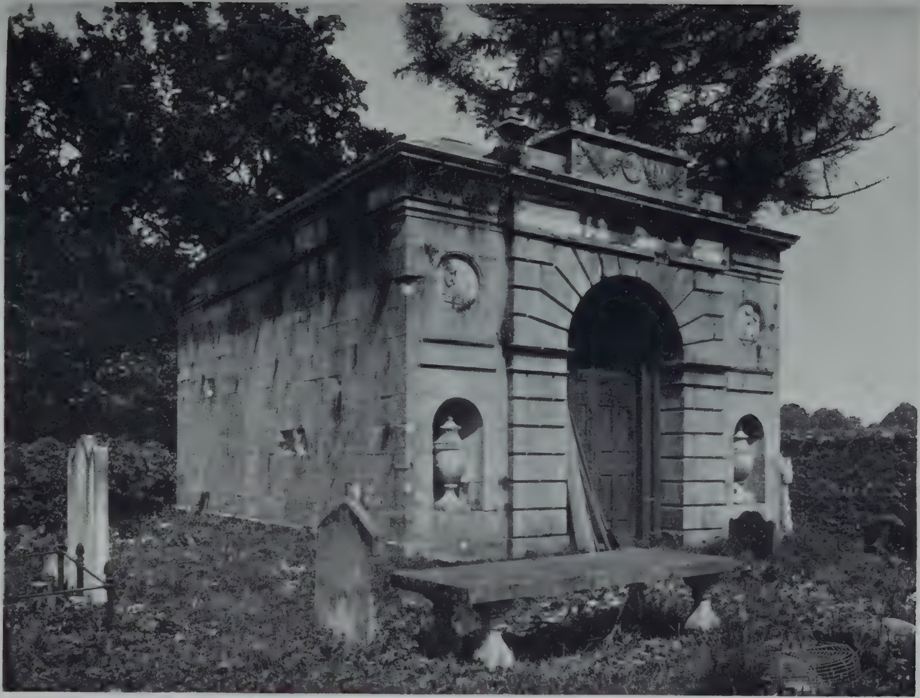
These books were certainly a source of education, but were also detrimental to architecture. Any person of education, following the rules laid down, could design a façade or a summer-house which would be 'correct' in proportion and not unpleasant. Design became a conscious effort to achieve a certain effect, and was not the growth of the plan. Many of the great Georgian mansions are thoroughly ill-arranged, and what is more, the elevation often does not express the purpose. There is frequently a lack of harmony between plan and exterior. It is perhaps in the more modest efforts, in the quiet houses scattered among the country towns, and the plainer houses of the smaller nobility and gentry in the country, that we find what is best and highest among Georgian buildings.

Some of these books were most minute in their instructions. One of the best known is Ware's *Complete Body of Architecture*, published in 1756. Several chapters are given up to directions as to how a simple country house should be designed and built. The author takes the case of a gentleman with a moderate family who is wishing to build such a house 'without columns, or other expensive decorations, handsome, though not pompous.' The site is duly selected having regard to certain laid down conditions, and the would-be owner asks the builder how much ground the house should cover. He is told that sixty-five feet frontage is required, and a depth of forty to forty-five feet. It is further decided that the offices are to be placed in detached wings, the kitchens at one side and the stables at another. Although these wings are to serve entirely different purposes, their elevations are to correspond in every way. Each wing is to be thirty-five feet long and to have a depth of forty-eight feet. These



PLAN BY WARE.

Kitchen block on left, stables on right. Note how aspect, convenience and utility are sacrificed to obtain symmetry.



A MAUSOLEUM BY ROBERT ADAM.

arbitrary dimensions having been settled, the distribution of the rooms is then laid down – 'it is always best to accommodate the inner distribution of a house to the outer aspect.' We have in this sentence the key to much that was in the mind of the strictly Classic designer of the time and find planning is on entirely different lines from those of mediæval times, or indeed from those of the early seventeenth century.

FAULTS OF PLAN

The method of planning in, say, the fifteenth century was to place the rooms in their most convenient relationship to each other regardless of symmetry or external effect. During the eighteenth century the rules of proportion and the following of Classic example became so important that the main attention was concentrated on the elevations and the principal rooms, though indeed the latter were often sacrificed to the former and were placed without regard to aspect or convenience. The lesser rooms were placed anywhere, and, in the large houses, owing to the height of the principal rooms and the same ceiling level being carried out to each floor, they are often far too high and overwindowed. One of the most favoured types of plan was that dealt with by Ware and which has been mentioned above, the central block with outlying wings. This plan was either evolved from the older courtyard type, or, as is more likely, was imported from Italy, where it was popular in the seventeenth century. It was also used in France at that time. It certainly lends itself to an imposing treatment, especially of the front elevation, but it makes a bad plan for this country, and to run such a house took an army of servants. The main drawbacks were that the kitchen was too far from the main block, and the stables too close to it, both very serious disadvantages. Such a lay-out was highly artificial, and this sacrifice of reasonable and convenient distribution of units to make an imposing show must be condemned.

Inigo Jones had used this type of plan in at least one house – Stoke Bruerne, in Northampton. Kent, Gibbs and others, in the first half of the century, designed similar formal houses where convenience was sacrificed to an imposing elevation. There is no lack of evidence as to the aim of the important architects of the day, and it is hard not to be rather severe in our criticisms of this artificiality. In some of the plans published by Kent, as *Designs of Inigo Jones*, but which were in fact probably as much his own, there are numerous symmetrical plans for houses in which the rooms balance exactly, making quite a nice geometrical arrangement on paper, but which are most wasteful of space and which would be highly inconvenient in practice. It is a common fault to find two rooms on, say, each side of a hall which, to make a pretty plan, exactly correspond in size and shape, although in fact one room is of infinitely less importance than the other and could have been made half the size. The rooms in these houses frequently have a wrong aspect, such as a morning-room facing north or a dining-room west. One must blame the point of view that allowed such faults and condemn their designers for not doing better. After all, the mid-eighteenth-century architect had a very easy task in comparison with those of the nineteenth century and of to-day. He had no need to worry about lighting,

[*Photo by Valentine & Sons.*

DUNCOMBE PARK.

[*Photo by Valentine & Sons.*

CASTLE HOWARD.

central heating, sanitary arrangements and drainage, and the thousand and one details in connection with such matters that the modern designer has to study. He had no steel or concrete and special construction to bother him. His construction was of the most simple, and he had really only three trades to deal with: masons, plasterers and joiners, with a little very simple plumbing.

Campbell, in his *Vitruvius Britannicus*, published in 1717, gives similar descriptions of what houses should be and lays down the same general formal lines as the others. Indeed most of the important architects of the time published books of plans and no doubt got some of their commissions by such means. They were obsessed with this formality and grandeur of exteriors, and had lost the vigour of Jones and Wren. They had, many of them, fine skill in massing and in arrangement and control of detail. Kent especially was a magnificent designer and much of his work is really great, but this ack of true cohesion between elevation and plan, and the many unsatisfactory devices brought in to achieve symmetry (such as blank windows), greatly detracts from the merit of their work as a whole.

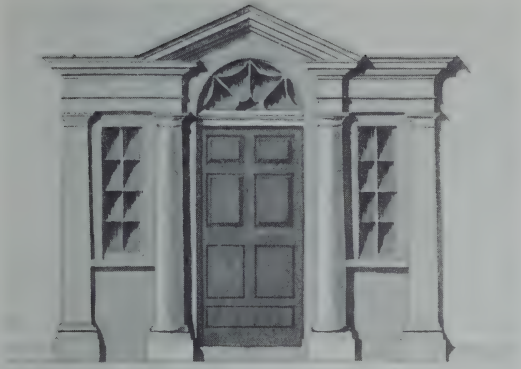
The architecture of the Georgian times has often been described, with considerable justice, as an 'elegant' occupation, and, as has been mentioned previously, it attracted a great deal of interest among educated people of the day. Many of them practised architecture as a hobby, and among the most notable was Lord Burlington, who designed a good many buildings. Earl Fitzwilliam was another nobleman who studied Italian architecure and is credited with the front of Wentworth Castle.

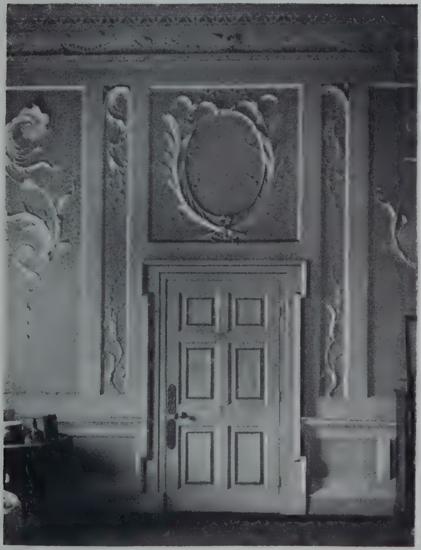
THE INFLUENCE OF PALLADIO

The main source of inspiration during the earlier part of the century was the work of the Italian, Andrea Palladio, and the architecture of the first half of the eighteenth century is often correctly spoken of as Palladian. So strong was this influence that some of Palladio's buildings were actually copied. Mereworth in Kent, by Campbell, is stated on his own authority to have been copied from a villa at Vicenza by Palladio, and this design had already been used by the Earl of Burlington for a villa at Chiswick. Palladio, who worked at Vicenza and whose career was at its height in the middle of the sixteenth century, is usually classed with the Venetian school of Italian Renaissance. His work, however, is really more Roman in character, as all his early training and study was received in Rome. He was a great architect, one of the greatest of the Italian Renaissance, and it was fortunate for the British school of the Georgian period that so fine a designer was taken as their model. Whatever faults we may find with the large buildings of the time, we must give full credit to the stately qualities achieved, and to the general suitability and refinement of detail.

MAIN CHARACTERISTICS

The plans in the great houses, as has been noted, were extremely formal and rarely well arranged for comfort. In the country houses the principal rooms were usually on the ground floor, with the kitchen in a separate wing or in the basement. In the more important houses the former was by far the more usual. In the town house





DETAILS OF A TYPICAL EARLY HOUSE.

the basement kitchen was almost universal throughout the whole of the period, and thousands of such pestilential kitchens are in use to-day all over England.

In the town house many of the important living-rooms were placed on the first floor. The use of octagonal, oval and round rooms is common, although perhaps specially characteristic of the later part of the century. Staircases were treated with great elaboration and were very often lighted by domes or lanterns. The walls were thick and the chimney flues were carried through them in the most complicated manner in order to arrange for the stacks being symmetrically placed on the elevation. Where this was impossible the stacks were often masked in a parapet or other part of the superstructure. Brick was the most common material with or without stone dressings; but stone and stucco were also much used. Stucco was specially developed towards the end of the century, and having regard to its protective quality, its ease and economy of treatment, its use was fully justified on both constructional and artistic grounds. Stucco, however, must be condemned in cases where it made an effort to imitate stone.

In the Palladian period porticos and arcades were introduced wherever it was possible, and their proportion is invariably dictated by the rules in vogue for the Classic orders.

In the large houses the lower part of the roof was concealed by a balustrade, but in the less important examples a deep cornice, often of wood, was the usual treatment, and very effective it was. Towards the end of the century the town house was nearly always finished by a parapet.

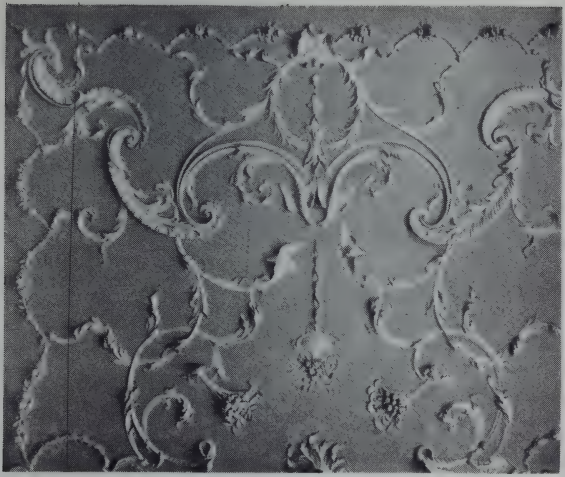
The orders usually ran the full height of the building above the plinth, and both pilasters and columns were used. This is the weakest point in the design of the time, as several tiers of windows often occur to one order, an arrangement which can never be really very satisfactory or pleasant to the eye.

A noticeable and very satisfactory feature common in the big mansions is the deep rusticated plinth. It serves a double purpose as it forms a pleasant base for the whole composition and does away with an appearance of rising too abruptly from the ground. Secondly, it reduces the size of the orders which rest on it to reasonable proportions. In cases where the plinth is not introduced and the orders run the whole height of the building they are often rather overwhelming, especially the strong lines of their huge entablature.

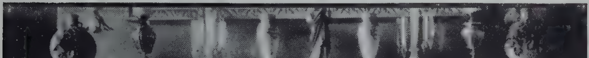
The Classic mouldings became familiar to every one, and workmen in all trades used them, even in the most remote parts of the provinces.

THE GREAT HOUSES

Castle Howard is probably the most important of the huge mansions and is worthy of special notice in any study of these. The house consists of a central block with two projecting wings, at the end of which are large enclosed courts. The total frontage is well over six hundred feet. Vanbrugh had a wonderful chance here, and the whole conception is very finely realized. It must, however, be regarded rather as a palace than as a private house. Even in the garden part, less than half the length of the main elevation, there is little suggestion of domestic architecture.



PLASTER DETAIL — EARLY 18TH CENTURY.



A MANTELPIECE — EARLY 18TH CENTURY.

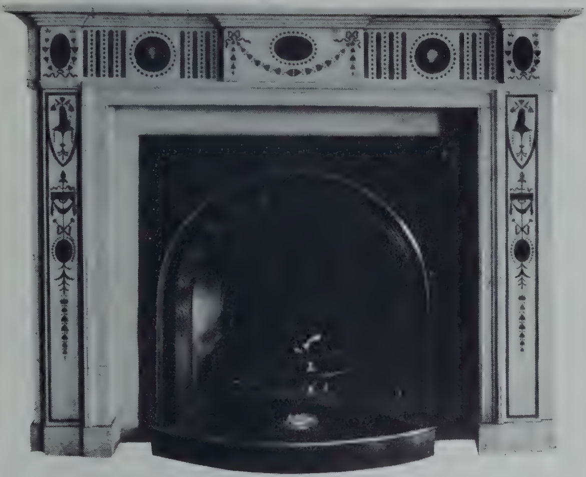
Blenheim is even bigger, and its main plan measures over eight hundred feet. Its plan is, on broad lines, similar to Castle Howard, but the whole treatment of the exterior is not so happy. The effect of the entire mass is less balanced and the grouping not altogether satisfactory.

Wanstead House, designed by Campbell, and finished about 1720, is entirely different. It is not nearly so large as Castle Howard or Blenheim, but was one of the most successful of the great houses of the early part of the century. The plan is much more English and owes less to Italy than those of the other two. It consists of a rectangle about two hundred and sixty feet long and with two small internal courts for lighting purposes. The elevations are very satisfactory and are examples of the Georgian style of the early period at its very best. This house is not in existence to-day. It is not possible to discuss these mansions in further detail here, and we must pass on to their lesser brethren.

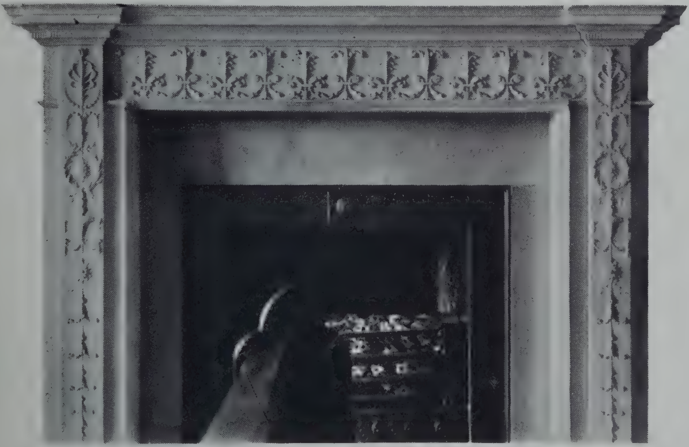
THE SMALLER HOUSES

In the writer's view, already expressed, it is in the small town and country houses in which Great Britain and Ireland are so rich that the most interesting and highest expression of Georgian architecture is found. The work of the great architects is interesting of course, but it is lacking in the human quality, the fitting into the surroundings, the best expression of native materials that are so characteristic of the more humble domestic work. Although even in them there is often a rather laboured symmetry of plan, they are essentially comfortable and convenient, and rarely is a good arrangement of plan sacrificed for show or for any imposing exterior. The worst feature in the plan is the basement or semi-basement kitchen offices so commonly found. There is some justification for this in town houses, where the difficulty of the site made it an obvious solution of the problem, but there was little excuse for its adoption in the country. To dig a large hole and then put your house into it was a poor method of arranging the rooms. It had one advantage which no doubt had some influence in selecting such a plan: it helped to keep the house dry and made the service fairly convenient by grouping all the offices together on one floor. It must be remembered that servants were of small account at the time, and even advanced and educated people had little thought for their comfort. Apart from this fault, however, the houses of which we speak were attractively comfortable: they were essentially homes, and admirably expressed their purpose.

In very few cases is the architect's name preserved, and often there is no record of the date of building, and up to recent times there has been no clear record of the development of the change in treatment and attention in detail that went on throughout the century. Some years ago the Georgian Society of Dublin undertook a very complete survey of the domestic work of that city, and the dates of hundreds of houses were worked out. A comparison of these gave very clear evidence as to the dates of alterations in style, which gives a very good indication of what took place elsewhere, always remembering the fact that the fashions in Ireland were a little behind England.



A BOSSI MANTELPIECE—LATE 18TH CENTURY.



A LATE 18TH CENTURY MANTELPIECE.

DEVELOPMENT OF STYLE

Certain general changes are worth noticing in studying this period.

At the beginning of the century the staircase was nearly always in the main hall, and consisted of three short flights terminating in a gallery. The joinery was heavy and the handrail often finished in a scroll at the bottom. A panelled dado and twisted balusters are usual in this type. In the second half of the century the three-flight staircase is rare, and it is hardly ever found in houses of the last quarter. The common arrangement was two flights with a half-landing. During the middle of the century a Venetian window was often placed to light the stairs; but this fashion died out by the end of the century. Better class houses had a back stairs running the full height of the house, in which case the principal stairs only ran to the first floor.

The question of angle fire-places has been much discussed. Though most common in the first half of the century, they were used throughout the entire period, and are purely the result of the exigencies of the plan. They are, naturally, more common in town than in country houses. The narrow sites justified their use.

FIRE-PLACES

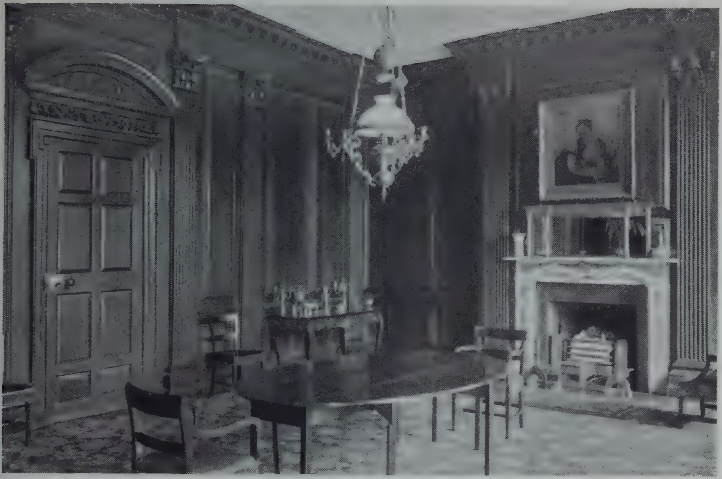
The question of change in the fashion of grates is a difficult one. The seventeenth-century grate had been a movable one of the 'basket' type, which was a development from the earlier 'dogs.' The later type of Georgian grate, familiar to every one, was similar, but the fire-place opening was narrowed till it closely enclosed the grate, the lower part only being left open.

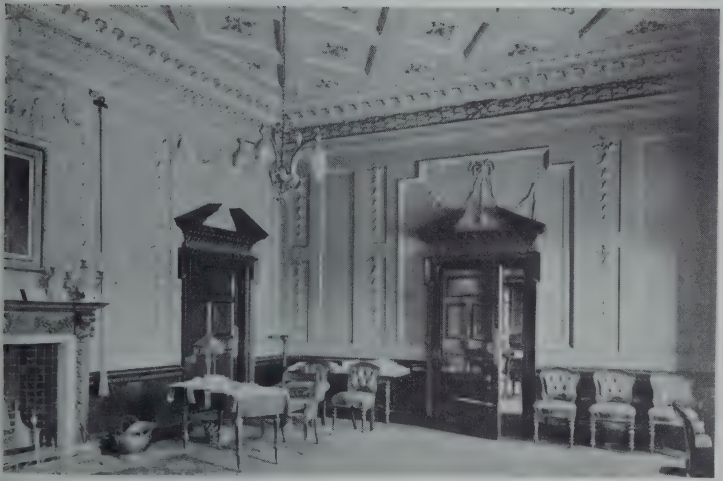
Such fixed grates do not appear to have been general till about 1750, but documentary evidence exists proving that the grates in certain important houses were all movable at this date. The facts appear to point to a slow alteration in favour of the fixed grate, and that by the last quarter of the century this type was almost universal. Enormous numbers of fire-places were reconstructed during the Adam period, as is proved by the frequency with which they are found in houses dating from the first half of the century.

WINDOWS

Windows followed an easily traced course of development. In the seventeenth century they were still of the casement variety, and where sash windows are found of a date much before 1700, a foreign, usually Dutch, influence can generally be traced. The early sash window was set flush with the outside of the wall, but in the second half of the century they are set back the thickness of a brick. The early sash was always divided into small panes, generally twelve to each window, divided up by heavy glazing bars often 1¾ or 2 inches on the face, and moulded with an ovolo. The early windows were high in proportion to their width, 6 feet 6 inches by 2 feet 9 inches being a common proportion, whereas in the later types 6 feet by 3 feet is more usual.

The same general alteration in proportion took place in doors, and the whole tendency of joinery work was to get lighter as the century proceeded. Panelling, almost universal in the beginning of the century, gave way in the second half to plaster, and by the end of the period was rarely used except for dados.





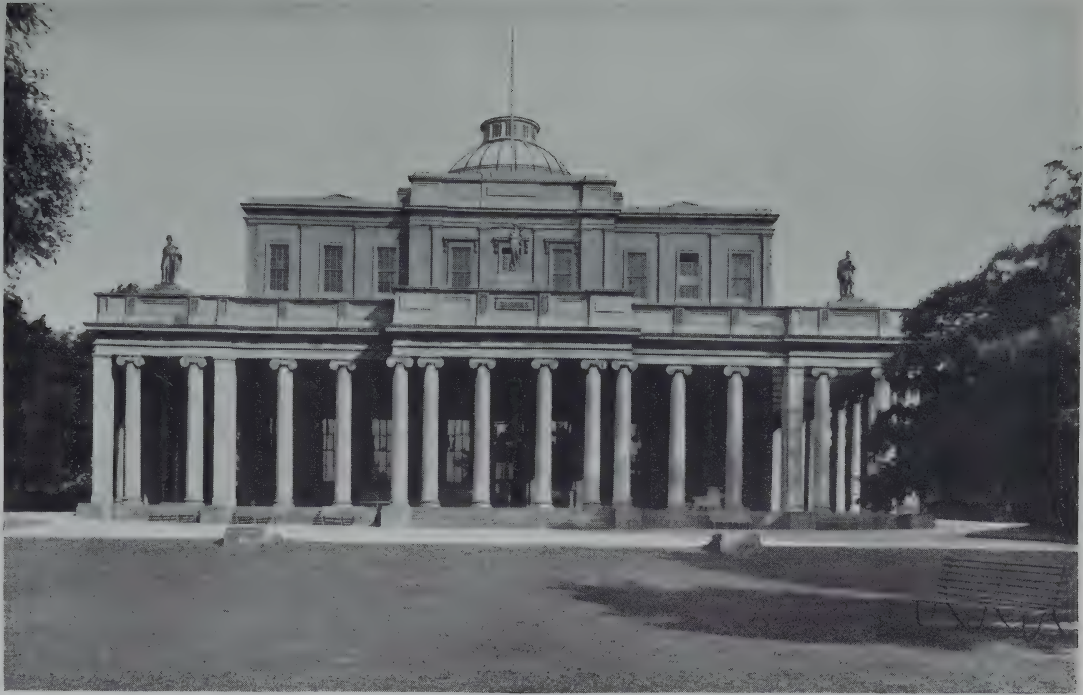
INTERIORS OF THE EARLY 18TH CENTURY.

of the eighteenth century. After this painted panelling was universal, cream, pale green or blue being the usual colours. Important rooms were often picked out in gilt.

PLASTER

Plaster work changed in character with the joinery, and after the middle of the century mainly under the Adam influence. In the large houses wood panels gave way to plaster about the end of the first quarter of the eighteenth century, largely owing to the improvement in wall-paper. Where decorative plaster was used it at first followed the lines of the wood panelling and covered the entire wall in much the same way. It was soon realized, however, that it was absurd to confine a free medium like plaster within the hard lines of the less tractable wood, and plaster rapidly developed in a very free manner. This phase is usually called Rococo rather contemptuously, but in fact there is a great deal of work which is worthy of the highest admiration. A great deal of Rococo plaster is most beautiful in design and execution. It was invariably modelled in situ. It covered the period approximately from about 1720 to 1760, after which it gave way to Adam work in its turn, but not entirely, as many examples occur which were done quite late in the century.

Ceilings followed the same lines. The seventeenth-century designs dealt with in the last chapter were mainly geometric, and this continued into the first quarter of the eighteenth. When the free or Rococo style began to make its appearance it was at first the work of Italians, but was rapidly taken up by native



THE PUMP HOUSE, CHELTENHAM.

craftsmen, from whose hands came by far the greater bulk of this work that survives to-day. The cornices were heavily enriched and over-doors, etc., were treated in a similar manner. Sometimes the cornice was omitted and the ceiling and wall designs intermingled.

About 1760 this work began to die out and the Adam school became predominant. At this time large numbers of small town houses were being built owing to the general prosperity of the merchant class. These demanded decoration on a smaller scale to that of the larger and more spacious houses, and this demand was adequately met by the Adam brothers and their imitators. The work of these brothers is so well known, both from the actual examples that remain and from the large numbers of books that have been written about them, that it calls for little comment in an outline history. As has been mentioned previously in this chapter, it is mainly notable for the small size and refinement of the detail. The vast majority of their work was domestic, and they used stucco on all possible occasions both externally and internally. They designed everything themselves, including metal fittings and furniture, and their work is always harmonious and their houses are well planned.

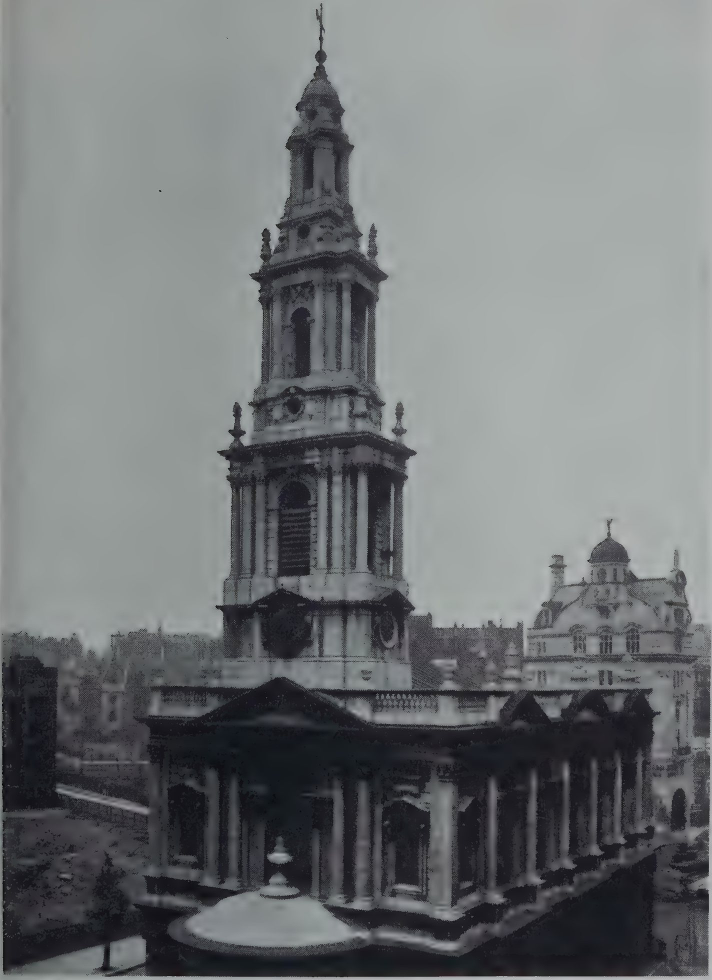
Their internal decoration in plaster is in very low relief, and they used figure medallions with conventional flower borders very freely in their mural decorations. Their ceilings are specially attractive and are often treated in an oval or circular design, arranged radially from the centre. They made great use of light iron balconies and porches in their street elevations.

CHINESE TASTE

About the middle of the century there arose a fashion for decoration in the Chinese, or, as it is sometimes called, the Indian manner. This was inspired by Sir William Chambers, who had travelled in the Far East. Chippendale came under this influence and designed a good deal of furniture in a more or less Chinese manner. This movement was severely condemned by Ware, and very rightly so: it was atrocious. It applied more to furniture, decoration, wall-papers, and carving than to pure architecture, and was not of importance in building or in the decoration of houses as a whole. It was more in the nature of a would-be amusing method of dealing with a room or two in large country houses; and many of these still contain an 'apartment' decorated and furnished in this, so-called, style.

GREEK AND GOTHIC REVIVAL

During the third quarter of the century the first tentative efforts arose to revive the architecture of Greece and of mediæval England. Many architects and other designers, especially of furniture, fell under the spell, and efforts were made here and there to design in an imitation of these styles. At first it was quite unsuccessful, and, as regards the number of buildings so treated, insignificant. Neither of these movements became important till the following century, and for this reason they are not discussed here, but dealt with in the following chapter dealing with the architecture of the nineteenth century, wherein their proper significance lies.



S. MARY-LE-STRAND.

Architect: JAMES GIBBS.

PAINTING

There was a great deal of decorative painting both mural (generally in panels) and on the ceilings of the large houses of the time. This, however, is a highly specialized subject, and in the writer's view it does not come in, properly, in a review of the architecture of the time. The painters worked quite separately from the architects. They were given a panel or ceiling to decorate, and there is little evidence to suppose that they consulted the architect as to the general effect that their joint efforts were likely to produce. Each of their paintings was a self-contained work, and may or may not have been subservient to the general scheme of architecture and decoration.

Indeed, in the second half of the century the same applies to the joiner and kindred trades, except in the Adam school. The architect at this time largely lost control of the decoration of his building.

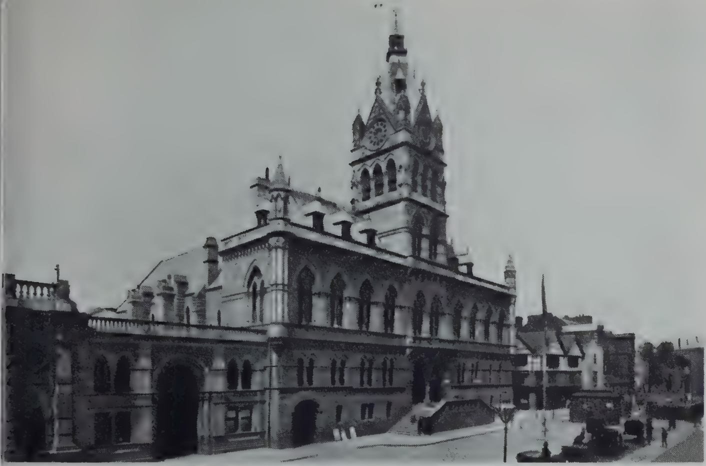
PUBLIC BUILDINGS

The century is of course notable for the large number of public buildings, many of which serve their original purpose to-day. Numbers of collegiate buildings and city churches were carried out which are excellent and interesting examples of the best of our Renaissance. In the public buildings the same general characteristics exist as in the great mansions. The attention is concentrated on the exteriors in every effort to make them imposing, and on the important rooms, to the disadvantage of the general plan. Many such buildings contain long dark corridors, and rooms inadequately ventilated and badly lit by means of small internal courts.

The Treasury Buildings, Horse Guards, the Mansion House, Newgate, Somerset House, are among the most important of London's buildings, and may be taken as representative. It is not suggested that these are the best buildings of the time in London, but they may be taken as typical of the work of the various architects throughout the century. In Dublin we get the Custom House and the Law Courts by Gandon, who had been a pupil of Sir William Chambers, and many other well-known buildings, including the Bank of Ireland, the Post Office, and part of Trinity College.

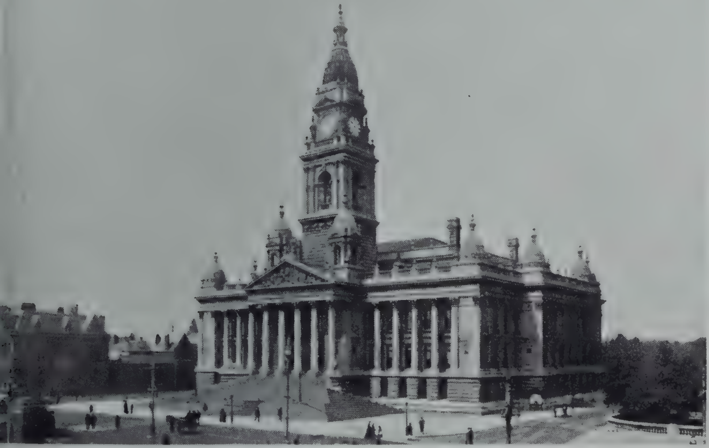
The Dublin Custom House is possibly the best eighteenth-century public building in the British Isles, and it has been measured, drawn and described innumerable times. There is a great deal of good work in Scotland and the provinces, but no special characteristics were developed and the aims and inspirations of the builders were those which have been already discussed.

Generally speaking, the more remote provincial domestic work, and that of Scotland and Ireland, is less refined and, in exterior treatment at least, more simple and rugged than that of the South or Midlands of England.



TOWN HALL, CHESTER.

A typical building in the 19th century Gothic manner.



TOWN HALL, PORTSMOUTH.

A good example of the Classic School of the period.

CHAPTER ELEVEN

The Nineteenth Century

A TREMENDOUS amount of nonsense has been written about the art of the nineteenth century. It must be remembered that it was a period of enormous activity – population, books, pictures, towns, scientific discoveries and the thousand enterprises that go to make up modern civilization were increasing with a rapidity hitherto unknown in the history of the world. Architecture suffered accordingly. The whole development was so rapid that no one had time (at least no one in control) to see what was happening. Various prophets arose and bewailed the conditions – very rightly – but their voices only reached to an infinitesimal proportion of the community; and this small proportion was itself being overwhelmed by the whole industrial system. This lack of foresight – this failure to grasp what was happening, sowed the seed of which we, to-day, are reaping the harvest.

Let us consider briefly the factors that operated in the early part of the century.

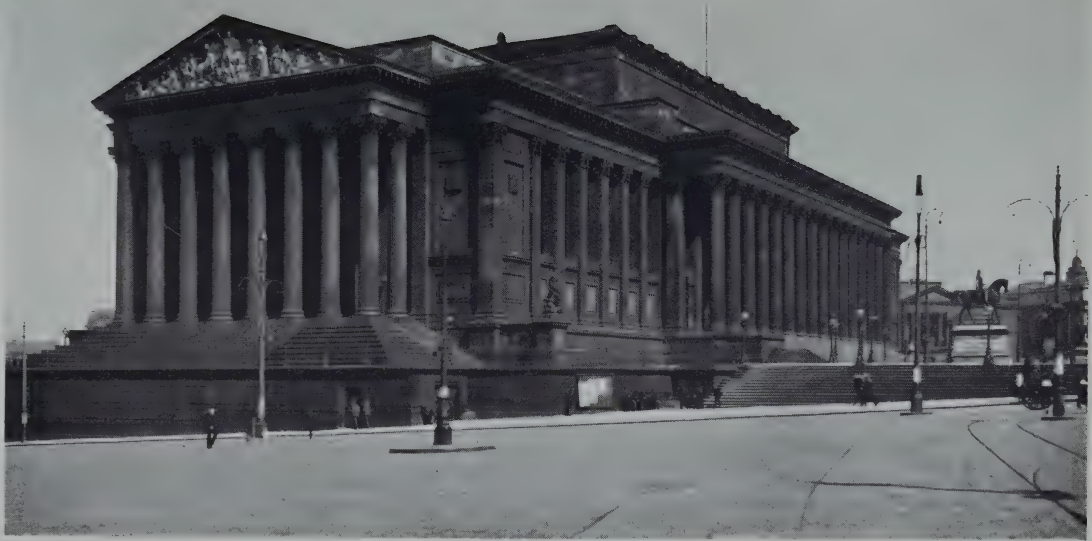
During the eighteenth century British architecture was, on the whole, as we have pointed out, in a sane and healthy condition. It promised a reasonable and suitable development for the future. Everything was going in a satisfactory manner.

NAPOLEONIC WARS

In 1789 came the French Revolution, out of which chaos arose Napoleon, whose subsequent enterprises shook the social and economic foundations of the whole of Europe. For about twenty years wars intermittently were waged in which England took a prominent part. The whole social fabric was upset during this time. Architecture and Art moved very little, and the younger men, of the classes that a generation or two before would have been interested in these matters, were spending their lives as soldiers. A study of the diaries and other writings of the time makes this very clear. The upper classes in England had perforce to lessen their interests in the arts of peace. After Waterloo things began to get normal again, although somewhat slowly. Those of middle age who live now, can realize the position, as similar social phenomena are occurring since the Great War. The normal growth of a decade (or two or three decades in the nineteenth century) has been stopped. The inevitable consequences of war on a large scale seriously affected the national life. Let us see then on what lines architecture began to arise again.

In the developed phase of the Renaissance, Classic detail and motive of design had been freely used – yet the plan was quite English. The whole has become essentially native and entirely suitable to the social conditions. In no period previously had so logical a style, suitable for all purposes, been thought of and carried out. The great architects of the Renaissance had a principle in mind. This was how they should adopt the fundamentals of Classic design to their immediate requirements. The plan as demanded by their social conditions must be their own. All their work, drawings and writings show this.

Now a change occurred after the period of stagna-



[*Photo by Stewart Bale.*

TOWN HALL, LIVERPOOL.

tion which has been spoken of; we find an entirely different spirit.

THE GREEK REVIVAL

The Greek revival started some time before its effect was really felt. One of the prime causes that led up to it was the publication of *Athens*, a book of drawings of Greek architecture, by Stuart. This monumental work, still of great interest, was published about 1760.

James Stuart had visited Greece in 1751 with his friend, H. Revell. It must be realized that the architecture of Greece had been forgotten for centuries in England, and at the time of this visit the country was still in an unsettled state and dangerous for travellers. These two architects remained for five years in Greece measuring and drawing its best buildings.

This book is still the standard work on this subject. The names of those who subscribed to it on publication give some idea of its importance and popularity. All kinds of notables were interested. Among the subscribers were Sir Joshua Reynolds and David Garrick, and numerous prominent people. Many builders and joiners supported it.

It dealt in most meticulous detail with the various Greek buildings measured by the author. Stuart was, one must admit, a good draughtsman, with excellent taste, but his status as an architect is a matter of conjecture. It is certain he practised after his journey to Greece, but nothing of any importance remains which can be attributed to him. Other publications of similar date had an influence also. The Adam brothers were an important factor in the development of later style.

This Classic, or, to be more exact, Greek revival, was greatly helped by the Elgin Marbles. These were brought to London early in the century and at once aroused a tremendous interest. The contemporary press and local allusions indicate a wide and enthusiastic consideration in London and the provinces. Greece and the Greek colonies suddenly took the place of Rome as the line for classical study. The famous Dilettante Society helped greatly in this movement. They produced Stuart's and Revell's last volume in 1816. Greek architecture became the mode.

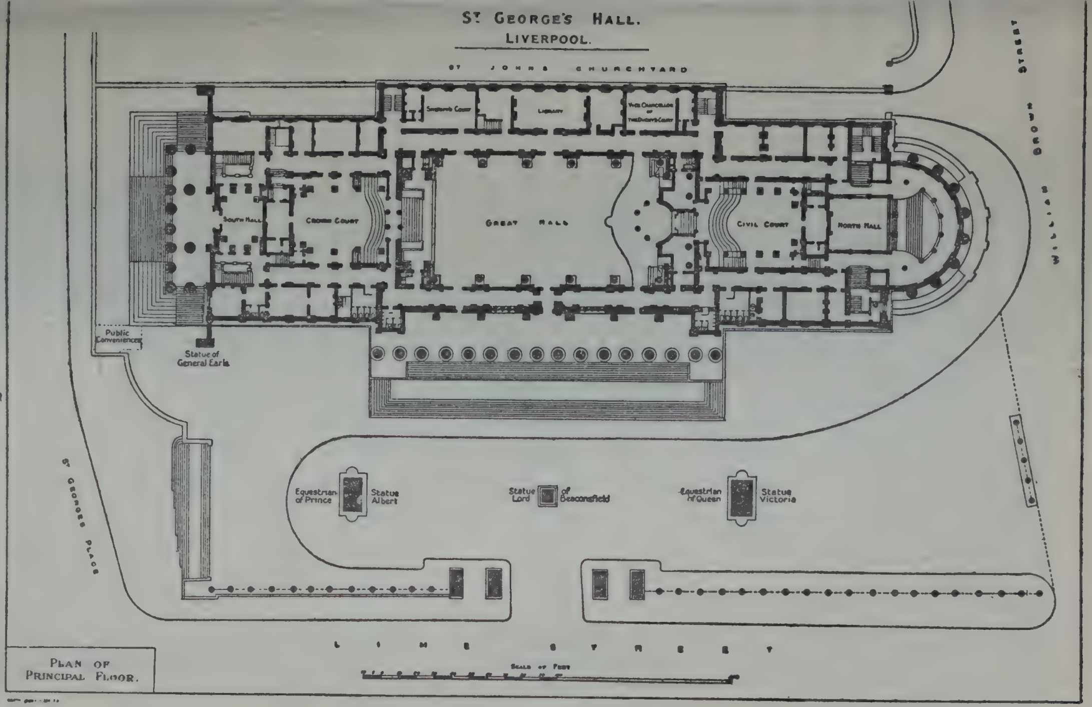
All building was affected. Churches, jails, town halls, post offices and other public buildings came under the spell. Modest provincial shop-fronts in wood and plaster were carried out in the fashion of the time.

It was not altogether a bad fashion – it had a great deal that was fine and noble – but it was too hard, too cast-iron and careless of materials to be great. It was not a growth, and the great difficulty for development lay in the impossibility of harmonizing severe Classic elevations with the English system of plan, which was a logical expression of the social needs of the day. It was altogether lacking in vitality.

Some of the buildings that were erected in the Classic revival manner have some monumental quality combined with refinement of detail that calls out our admiration. The great fault usually is the lack of relation between the plan and elevation.

Many absurd things were done – which may have looked all right on a drawing, but were utterly illogical and unsuccessful in stone. The Church of St. Pancras, by Inwood, is a case in point. This building, erected in

BIRMINGHAM TOWN HALL.



ST. GEORGE'S HALL.

1819–22, with a façade in the Greek Ionic manner, is crowned with a ridiculous steeple in which two stories are composed of copies of the famous Tower of the Winds – the smaller one superimposed upon the larger. The façade is stuck on to the building like a bad modern shop-front without any regard to internal arrangement.

Other churches at Kensington and Norwood have the same lack of balance. The Old University of London Building (Wilkins) in Gower Street, and the Fitzwilliam Museum, Cambridge (Basevi), are good specimens of Classic building of the time, in which the general harmony is pretty well kept. Probably, however, St. George's Hall, Liverpool, is the best piece of pure Classic in England. Special interest is attached to this building, as Elmes, the architect, won it in open competition at the age of twenty-three. A very remarkable performance. The plan is a dignified one, almost cathedral-like in its simplicity. It is arranged to follow original Roman lighting methods, as the difficulty of introducing windows into a Classic façade is got over by roof lighting. There are no windows that show. How far these great porticos, as used in these Classic elevations, are suitable to this country, is a matter which is discussed in the last chapter.

The New High School, Edinburgh, is a typical case where a Classic exterior in a very formal manner is stuck into a suffering plan. The result is a fairly pleasant front elevation, but a hopelessly bad building as a whole.

CHURCHES

Not many churches were built in the period of the Greek revival. The Gothic revival claimed most of

[Photo by Valentine & Sons.

BELGRAVIA, LONDON.

Typical mid-19th century houses.

those built during the time of rapid expansion of the towns in the middle of the century.

Some of the private houses and country mansions of the period are very absurd. Grange House, in Hampshire, from the designs of Wilkins, who carried out a lot of work both in this manner and in the revised Gothic of the time, is such a case.

It is externally a Doric Temple covering a modern house. Even the chimneys are concealed in the pediments and other parts of the upper walling, and its exterior expresses no purpose of its object or plan. The exterior and interior are entirely unrelated. It is a typical example of the lack of thought of the designs of the time. It cannot be taken seriously as architecture.

One architect of the middle of the nineteenth century seems to stand out as having real care and thought in his work, and this is Barry. He seems to have studied his problems on logical and scholarly lines, and his work shows this clearly. The Travellers' Club, the College of Surgeons, although the latter was only a remodelling, were very successful, and were restrained and monumental examples of his work, with charming detail.

GOTHIC REVIVAL

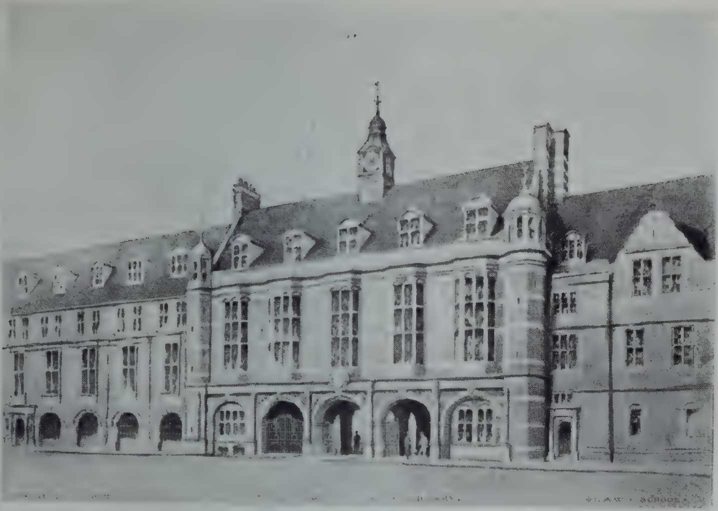
The first movements in the direction of this highly artificial attempt to revive mediæval architecture occurred at about the same time as the beginning of the pure Classical school. The full force, however, was not felt till later; round about 1760, Horace Walpole started to remodel his small house, Strawberry Hill, and by about 1770 had reconstructed that modest abode into the semblance of a Gothic abbey. Indeed, a certain amount of what one must call Gothic work was carried out in the last quarter of the eighteenth century. This is, of course, very well known to students of furniture, although generally ignored in matters of architecture. The Adam brothers were among those that designed in this manner, although work of this nature is not commonly associated with their name. The spurious Gothic of this period is, without exception, ill-designed and thoroughly artificial. It is entirely lacking in Gothic spirit and feeling, and is merely a blind application of ill-understood form.

It is all very trivial and of no importance, and fortunately the buildings in this fashion – style it cannot be called – are few and scattered.

WYATT

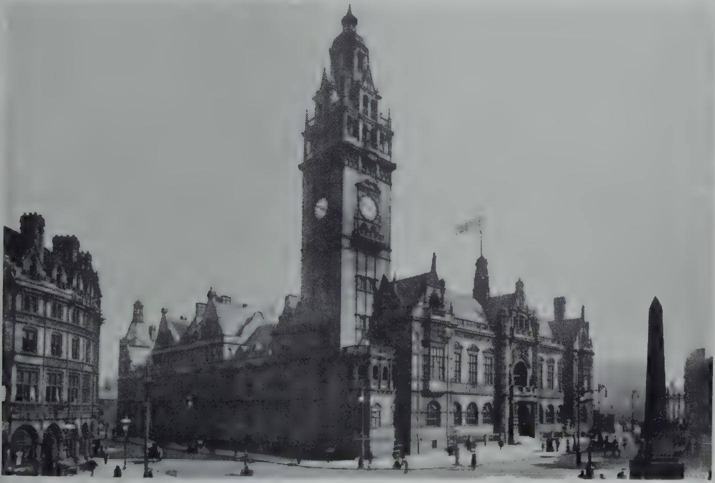
The real start of the movement was much later. In 1822, James Wyatt, an architect who would have been certainly a big man had he lived in a more fortunate time, completed a great mansion for a client at Fonthill Park, known as Fonthill Abbey. This great house had considerable merit, and on the whole the Gothic detail and general feeling was fairly good; at any rate, it was an immense advance on anything of its time. It aroused enormous interest. Wyatt's chief claim to fame lies probably in Fonthill Abbey, but, as it has been demolished, we are dependent on drawings and plans for our judgment.

He restored numbers of churches; very badly in many cases, and much of his work has had to be redone.



THE 'SQUIRE' LAW LIBRARY, CAMBRIDGE.

Architect: THE LATE SIR THOMAS JACKSON.



[*Photo by Valentine & Sons.*

TOWN HALL, SHEFFIELD.

About the best example of a public building in the Renaissance style of the time.

Another architect responsible for much work of the time was Wilkins, who built a large number of country houses in more or less Tudor style. His work, while elaborate, is lacking in feeling, and a large amount of badly applied detail is obvious. It is commercial work rather than that of an artist.

NASH

Nash, who ought to have been known better, as his Classic work shows us, also responded to the new demand and gave his clients numerous buildings in bad imitation Gothic. Nash's principal claim to fame was the old Regent Street façade, now, alas, demolished. At his best he was a great artist, but in his Gothic work he was not even mediocre. He had no conscience, and if he could not use stone through lack of money, he used brick, or timber and plaster in his turrets and Gothic 'features.' The most sane aspect of the Gothic revival was influenced by two or three whose ideas stand out as beacons amidst the many swirling currents of their time. Britton's *Architectural Antiquities*, published somewhere about the end of the first quarter of the century, shows a great deal of understanding of the real Gothic. It must have had considerable influence. Without such a study things would have been worse.

PUGIN

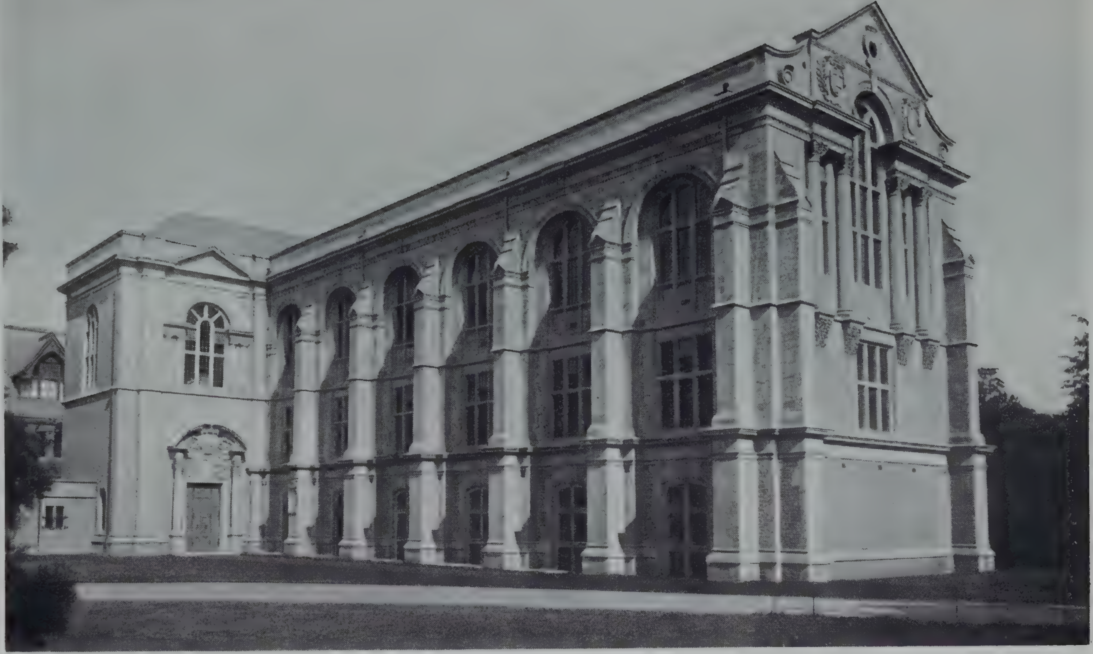
The elder Pugin wrote copiously on similar sound lines at the same time; and his son, who had started by assisting with his father's literary work, gained with him an intimate understanding of thirteenth-, fourteenth- and fifteenth-century churches, and practised as an architect – successfully if one considers his difficulties. He built a large number of churches, and, while he was hardly a great architect, rarely did anything bad or unpleasant. His work is 'cast-iron' and lacking in inspiration – but at the same time he must be given credit for being logical: his plans and elevations fit. His comparative failure may have been due partly to the craftsmen of his time, who carried out his designs. He was, to his credit, always harmonious. His arrangement, elevations and detail at least agreed.

A comforting achievement rarely found in early Victorian building.

HOUSES OF PARLIAMENT

Pugin worked with Barry on the plans of the Houses of Parliament, and is principally associated with the detail designs of certain trades, such as the stained glass, joinery and metal details in that ambitious but unsuccessful work. However, it must be accepted as the most important building of its style. The conditions under which it was built are rather interesting to us of the present day. They laid down 'that the style is to be Gothic or Elizabethan.' Barry, the successful competitor, was not a Gothic man. He has been referred to previously in this chapter as a skilful designer in the Classic manner, owing much to a strong Italian Renaissance influence. His plan shows this clearly and is definitely Classic in conception. Most of the elevations, and probably all the detail, are Pugin's. Had Barry been unrestricted in his choice of style, he would most certainly have produced a Renaissance design.

The Houses of Parliament were commenced in 1837,



THE NEW RADCLIFFE LIBRARY, OXFORD.

Architect: THE LATE SIR THOMAS JACKSON.

about the same time as St. George's Hall, in Liverpool, its most important Classic rival.

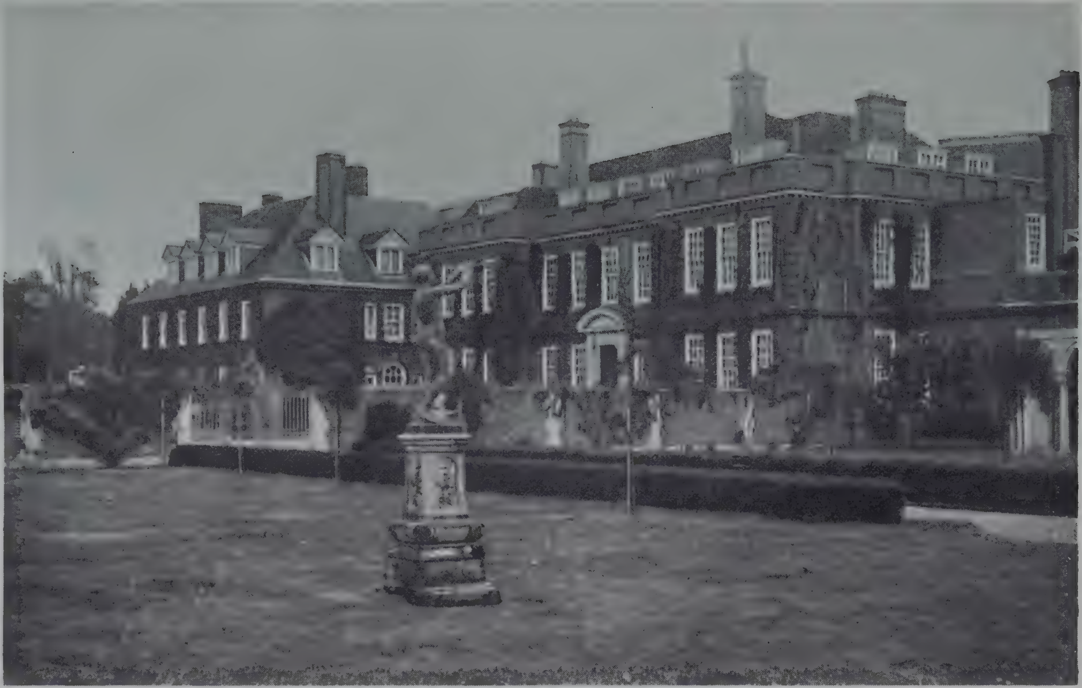
The middle of the century was a time of great building activity. Industrial towns were growing by leaps and bounds; large rural areas were becoming urbanized; suburbs were spreading round all the great cities, and public buildings of every description were being carried out. This expansion was going up to the end of the century, although it had considerably slowed down by then. The last half of the century was a period of architectural confusion of the most amazing sort, and the third quarter produced a mass of buildings overwhelming in their ugliness and pretentiousness. Church, shop, house, town hall, or cottage – search where you will – it is almost impossible to find anything of the time of any merit.

The very end of the century was better. Forces had begun to operate which helped to clear the air, and to produce a reaction against the vulgarity of the Victorian period.

The greatest individual force was undoubtedly Ruskin. No one reads Ruskin to-day – very few of the younger people seem to have heard of him. Yet *The Stones of Venice*, published in 1851, and Ruskin's other books, have together contributed enormously to the later standard and outlook. One may or may not agree with a great deal that Ruskin wrote, but it is certain that he did a very great deal to pull architecture out of the state of chaos into which it had sunk during the Victorian period. Ruskin, of course, was mainly a supporter and advocate of Gothic, but this was not so to the complete exclusion of other work. Ruskin gave the highest praise to the efforts of certain distinguished architects of the Renaissance.

The writer holds no brief for Ruskin, who in some ways is a most irritating thinker. It should be conceded to him, however, that he helped very greatly to remove the clouds of his time, and to give to us Moderns the clearer outlook that we believe to be ours. He stood out in his day as one who was at least trying to be clear-thinking when confused thought was general in art and architecture.

Another important influence was William Morris, who came soon after Ruskin. Morris, unfortunately, wrote a lot of nonsense. In his lecture to the Art Workers' Guild in 1892, he tells us that he believes that a vast number of the beautiful mediæval buildings built all over this country never had an architect at all. By architect he means one who prepared the main plans. He suggests that the roughest possible draft was made out for these buildings, and 'they grew up without any intermediary between the mind and the hands of the people who actually built them.' This is a very wild statement, and it is difficult to see how Morris came to such a conclusion. The most superficial examination, let alone any study of the refinements of a mediæval cathedral or Early Renaissance house, shows such a close inter-relation of parts, elevation, section, plan and detail, as to preclude all possibility of accident. Plans may have been roughly drawn (although when we consider the MS. writings of the time there is no reason to assume a low standard of draughtsmanship), but they must have been fully worked out. This is perfectly clear to any architect, or other person familiar with



A HOUSE AT LYMINGTON, HAMPSHIRE.

Architect: NORMAN SHAW.

the methods, primitive or civilized, used in building practice.

Although Morris made many stupid mistakes of this sort he is generally sound. He gets at the heart of good art. He is fundamental and energetic in thought. He has been a great influence on his generation, and on those who followed.

Up to the middle of the nineteenth century this ridiculous rivalry between Gothic and Classic styles went on. Many architects used both! The last important Gothic building was the Law Courts. Large numbers of cathedrals and churches had been restored, all of which helped on the Gothic movement, the advocates of which tried their best to introduce Gothic for every kind of building.

The Great Exhibition of 1851 aroused public interest in architecture and the arts and crafts, and the writings of Ruskin, Sharpe, Parker and many others helped to form a more healthy outlook, and to kill the extremists' views on both the Gothic and Greek revivals. However, the Exhibition and the activities resultant to it did more than arouse an interest. It brought in the 'arty' commercial firms, and gave an impetus to restoration on the part of clergy and others connected with the Church. A society known as the 'Cambridge Camden Society' preached the purity of mediæval work and the need for restoration, with great energy and little understanding. Sir Gilbert Scott was the most active architect of the time – the sixties and seventies. Restoration ran rampant.

Churches were recarved, cleaned and redressed; good windows which had replaced earlier ones inefficient for lighting purposes were removed, and the generally guessed at originals replaced. Fine work of the Elizabethan and Jacobean periods was hacked out and removed. Many of these old buildings had their very vitals cut out in this, so-called, restoration.

On the other hand, one must give a little credit to Scott and his contemporaries: many of Wyatt's worst efforts were removed – Wyatt to whom Pugin referred as of 'execrable memory.'

Scott was certainly the big man of the time; but although his work was based on a close observation of that of the thirteenth and fourteenth century, he cannot be regarded as anything more than an architect who practised successfully in an extraordinary rotten period: he was never an artist. He may have been sincere; indeed, he probably was, but he was lacking in the qualities of a great architect.

The Gothic school received a final check when it was decided to build the Foreign Office in the Renaissance style. Little more was heard of the suitability of Gothic for public buildings, and it came to be an understood thing that church work should be Gothic, and public building treated in some sort of Renaissance or Classic manner. The pure Greek elevation was by now a thing of the past.

About the seventies and eighties there was a strong group of architects practising who built offices and other town buildings, and many country houses also, in a rather simple Georgian manner. Norman Shaw was perhaps the most important of these.

It is difficult to judge the work of this time, but generally it is not satisfactory to modern eyes. It is

BUCKINGHAM PALACE.

often overcrowded with detail and lacking in strength of main lines and masses.

In the seventies and eighties a new phase of development, far reaching in its immediate results, took place.

Travel was much easier than during the previous two or three decades, consequently individual architects and other designers, as well as the various societies associated with their activities, began to make hurried excursions to Belgium, Normandy and other places easily accessible on the Continent. These visits took the form of vigorous sketching pilgrimages; and little bits of this or that building were recorded more or less faithfully in hundreds of sketch-books, according to the artist's taste and capacity.

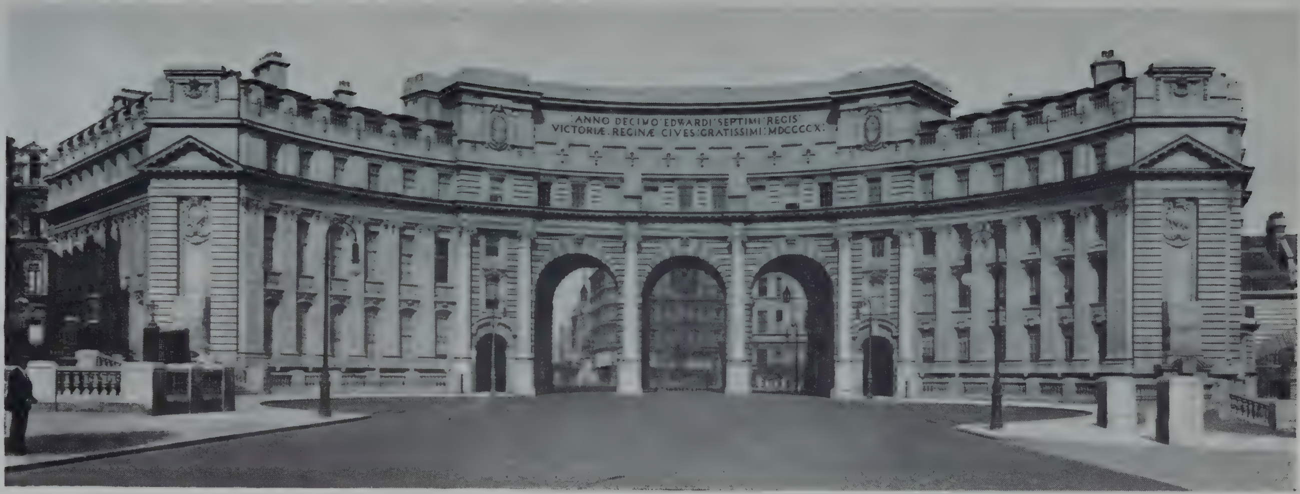
These energetic enterprises were of very doubtful value. One can say without hesitation, had these, generally young and enthusiastic, architects expended the same amount of energy in, say, Salisbury or Worcester, the architecture of to-day would have been in a more healthy state. These excursions did not involve any serious study; they were vastly different to those of the Georgian period, when the students who went abroad worked on generous lines and spent considerable time in the study of the plan and details of a few buildings. One was a process of education; the other a process of adding a few ill-digested fragments of knowledge to the mind.

At this time – the last quarter of the nineteenth century – planning was a lost art among English architects. Thanks to a small body of men, yet hardly middle-aged, it has become a vital factor in modern architecture of the high manner. This is dealt with in the last chapter.

The results of this sketch-book movement are to be seen very vividly in our countryside and town to-day. In the smaller houses, villas, etc., which were springing up in the last quarter of the century, there was a tendency to design what can be described as the 'wilfully picturesque' cottage house. So-called 'grouping' became a passion and was carried to absurd lengths. Gables, dormers, overhangs, were all introduced to give a broken-up effect; and balance and the dignity of restraint were not considered. Leaded glass was used freely, and was nearly always of bad design and colour.

Towards the close of the century a movement came in known as 'New Art.' This was the result of the feeling aroused among a school of the younger people against the uninspired renaissance and the vulgarity of the domestic work of the time. This movement attempted to show that all previous work must be disregarded and entirely new work free from all tradition carried out. Although it would be unfair to say that no good work at all was done by the enthusiasts of the time – yet, as a whole, the movement, of course, failed and fizzled out, as it was bound to do.

All through the latter half of the nineteenth century hundreds of streets containing rows of working-class houses were being built in every industrial town. These, of course, had in most cases no architect and were designed (if the word can be used in connection with such buildings) by the speculative jerry-builder. They were a purely commercial transaction, and all artistic quality, comfort, amenity, and indeed decency,


ANNO DECIMO EDWARDI SEPTIMI REGIS
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THE ADMIRALTY ARCH.

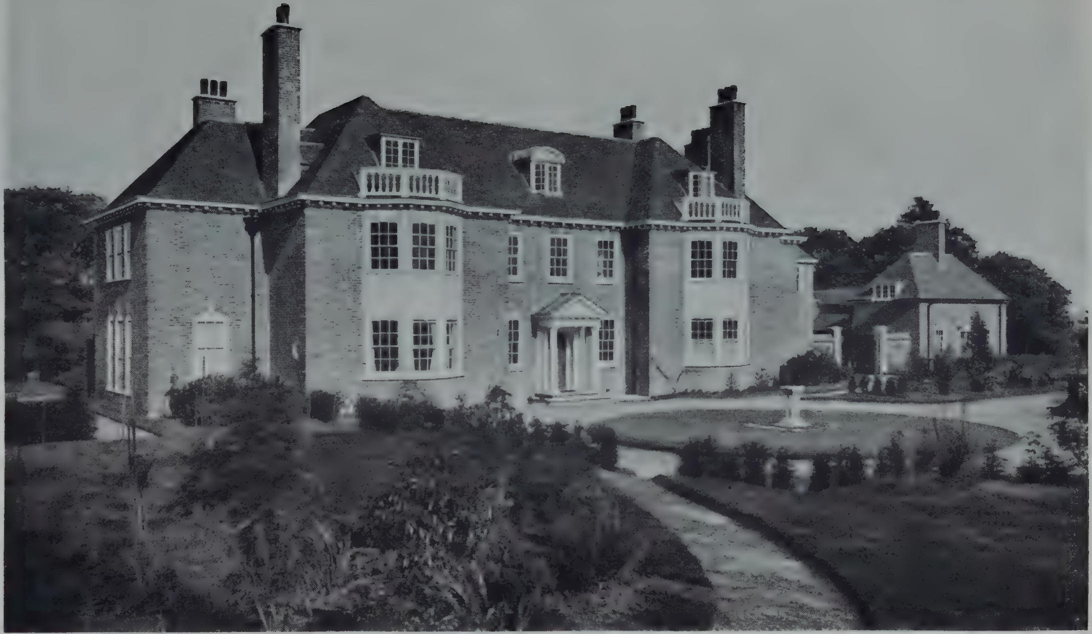
were disregarded. It is the fashion – and, indeed, very rightly in many respects – to condemn the Victorian age with extreme severity. No more serious indictment can be brought against its political and social leaders than this wholesale production of slums that was allowed to take place. The possible remedy for this condition is dealt with in the last chapter.

CHAPTER TWELVE

The Present-Day Position

THE question is often asked, 'What is happening now – is there any style at the present time?' It is not an easy one to answer. In the sense that a style existed in, say, the thirteenth century or in the eighteenth century, the answer certainly is No. Whether we are making towards a national style is not quite so easy to answer. It seems impossible that a style, in the sense of a universal type of building for all purposes, can ever again be worked out. Civilized life has got too complicated and the requirements of modern buildings are so diverse as to preclude any such possibility. This does not mean, as many critics have it, that the art of building is exhausted: it is not. On the contrary, in the writer's view the best in modern architecture is intensely alive; it is as vigorous as in any period. Unfortunately we are overwhelmed at present with a flood of bad and mediocre work which is apt to blind us to what is good.

The tendency in our public buildings is towards a simple monumental quality devoid of fussiness, built with very carefully selected materials which shall be suitable for their work. The detail shows a strong tendency towards simple Greek form rather than Roman or Renaissance : but in good modern building there is no slavish adherence to rule, no blind copying of certain combinations of mouldings which the text-books of twenty years ago set up as correct. The same general trend is to be observed in large blocks of shops, offices and flats. There is a healthy tendency to do without the



HEATH LODGE, HEADLEY.

Architect: GUY DAUBER.

orders except in so far as they help to emphasize an entrance or other feature.

The great rows of attached columns and the meaningless porticos of the eighteenth and nineteenth centuries would not be tolerated to-day. The writer would like to go further and see orders entirely abolished except where columns are structurally necessary.

Individually much modern work is excellent: the trouble lies not in the building but in the street. There is at present no cohesion and buildings jostle shoulders with one another which are mutually detrimental. A modest design is overshadowed by a more exuberant one, and a good but rather rich building appears vulgar when compared to a simple and restrained neighbour.

To walk down a modern street in a large city is, architecturally, a bewildering business: it is more, it is a nightmare. Yet it is easy to find examples of good street architecture all around us. The street is the unit, and until we face this fact and deal with it, either by combination among architects, which would be the ideal way, or by legislation, which would not be so good, we shall not have cities which are worth having and of which we can feel proud.

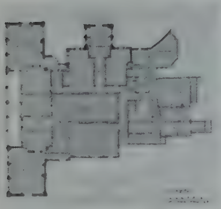
The old squares of many cities teach a most obvious lesson in this respect. Some of the plainest of these, as in Dublin, are the most successful. Here we see tall houses of the Georgian period almost exactly alike and of the most simple design in long rows, the only variety often being in the treatment of the doors and railings. Yet there is no monotony – rather a pleasant sense of harmony and dignity. Such a square suggests the parallel of a number of distinguished guests at a dinner-party of well-bred people. All are dressed alike in the main, yet there is a personal note in each which serves to emphasize character. The London street, on the other hand, suggests a fancy-dress parade in which each person is striving to outdo his neighbour: vulgarity is the keynote. Repose, restraint, dignity, are all lacking. It is all very well as a temporary joke, but as a permanency it is dreadful.

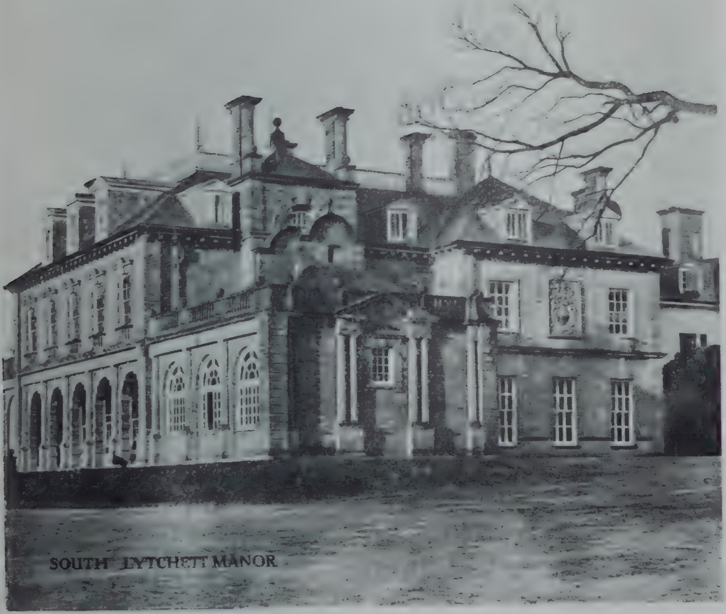
The street is the unit. In London we have the example of the old and new Regent Streets. Nash's old elevation was simple enough: not without its faults, but not even the most optimistic of critics hopes that the new street will be anything like so good as the old. There cannot be the same dignity – there can be no monumental quality in such a street, no matter how skilful the individual buildings.

In ecclesiastical architecture it is difficult to see what is likely to happen. It is improbable that many churches will be built during the next few generations – the numbers are up to the requirements, and if, as the writer believes, the population of this country is going to decrease, there will be little need for further churches of any denomination for a long time to come.

Church architecture in the Established Church has followed Gothic principles for a long time, although, indeed, little of the work of the last forty or fifty years shows much merit. Most of it is beneath contempt. It has followed the Gothic rules, but has been mostly without that live quality of spirit which alone makes architecture worth while and a living art.

The architecture of the Nonconformist churches, however, on the whole, has been much worse. Hardly





Architect: W. D. CAROË.

a town but is not disfigured by some hideous monstrosity faced in brick – sometimes treated in a Gothic, sometimes in a Renaissance manner. Usually these churches or chapels suggest that they have been designed by a carpenter who had once seen a poor drawing of a church, and without any other guide. The towns of Wales are the worst offenders. What will happen in this field is hard to say. It is not easy to see how matters will get better; it is to be hoped that not many more will be built, or if they are built that the general improvement in architectural education will help matters.

It is refreshing to turn to a brighter outlook in connection with churches. Liverpool Cathedral, now well forward, has given us a new outlook and shows what can be done in the Gothic style by a man of genius. This building, which it is not too much to say will be one of England's greatest works of architecture when it is finished, although, broadly speaking, Gothic, makes a complete break away from much that is traditional in that style. The scale of the internal units is so different to the normal that it almost suggests a Classic quality. One dares hope that Mr. Scott's inspired work may influence generations of architects yet unknown. To many architects of the present generation it is a revelation to find that Gothic work can be as alive and vigorous as in the Middle Ages.

DOMESTIC BUILDINGS

It seems to the writer that the best hope for the future lies in domestic work. The great country house, it is true, seems a thing of the past, and it seems pretty certain that there can be no recurrence of the activities centred round them as they existed at the end of last century.

It is rather to the small suburban or country house that one must look. There has been a vast number of such houses sprung up of recent years, and there can be no doubt that enormous further developments will take place.

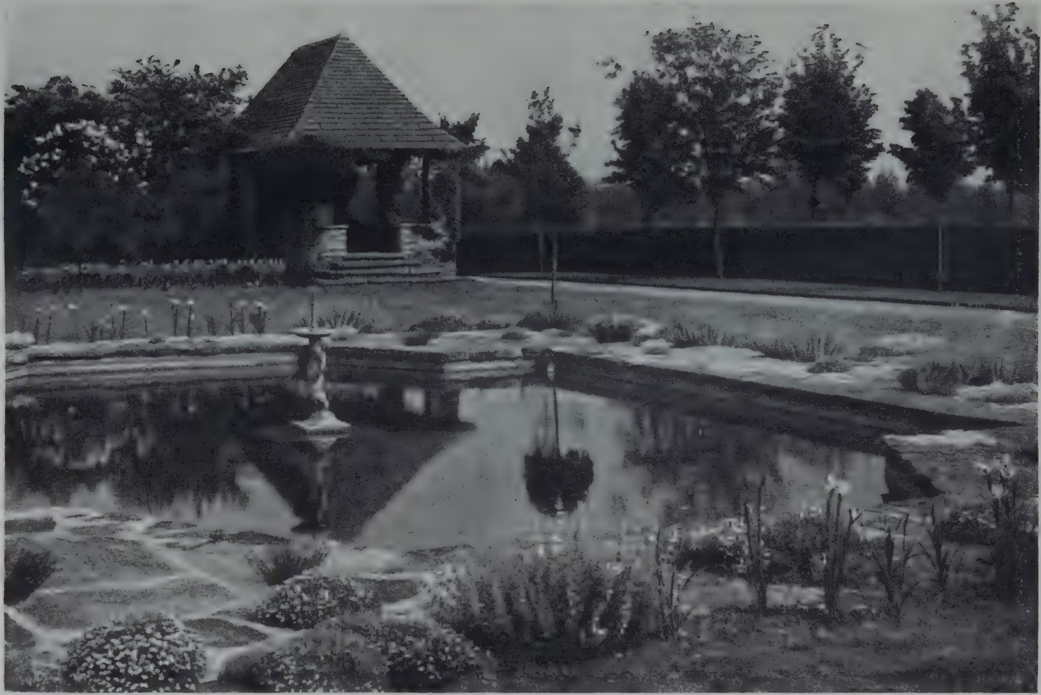
A certain percentage of such houses shows a very high standard of design, and one can detect, broadly, two main schools.

The first is the plain symmetrical type based on the best Georgian work, and carrying on the good eighteenth-century traditions without the eighteenth-century faults of planning, detail and uninspired application of the orders. Numbers of such houses are built to-day which are attractive, logical and homelike.

The second school is the type of house of the cottage type, based, broadly speaking, on the Tudor, and carrying out the general features of that style. In the hands of a good architect this 'craftsman' style, as it has been called, is very satisfactory and can be built in almost any material. It also is capable of great abuse, and in the hands of incompetent designers or speculative builders, furnishes us with those blots on the landscape with which we are unfortunately too familiar.

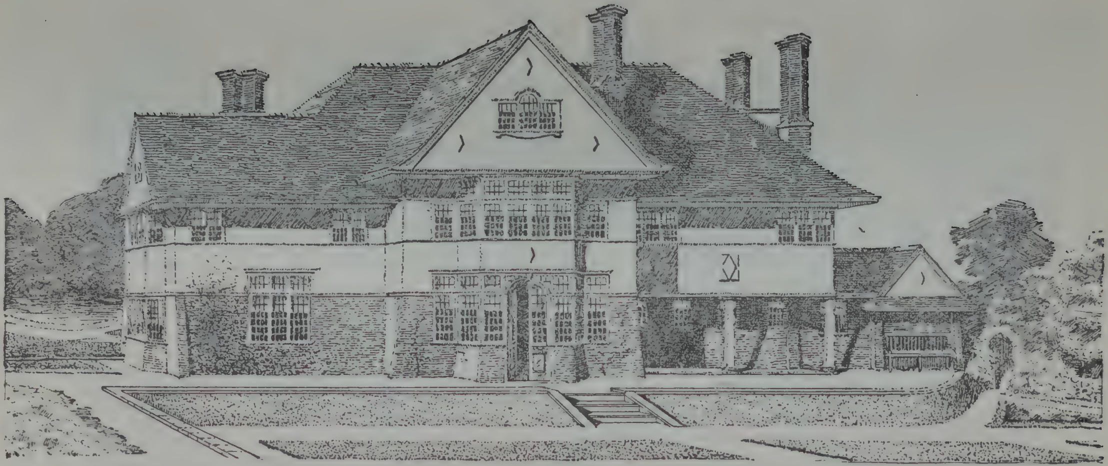
The 'wilfully picturesque' house, referred to in the chapter on the Nineteenth Century, is still with us. We can only hope that time and improved education and taste will, if they do not eliminate it entirely, reduce it to a minimum.

The status and education of the architect is of vital importance to the country as a whole. The effects of



A GARDEN.

Architect: GUY DAUBER.



MODERN HOUSE IN ESSEX.

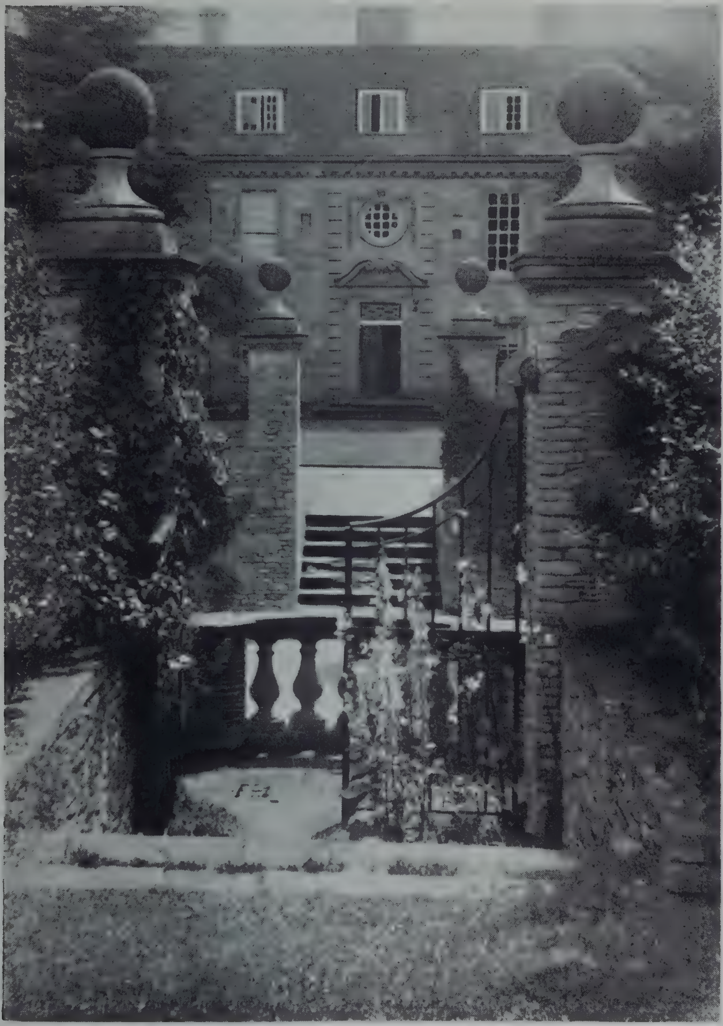
[H. Steward Watling, Architect.

good building are incalculable and are really far more important to a nation than its painting or music. No one can avoid some study, even if quite superficial, of the architecture they see daily, while painting and music are far more removed from normal life, and influence a comparatively small proportion of people.

We can regard modern architectural education with a considerable degree of satisfaction. Even twenty years ago the training of the young idea under the apprenticeship system was a haphazard business. The student learnt from what he saw going on in his master's office and from casual classes at an Architectural Society if he was lucky enough to live in a large town. If not, he probably learned nothing except from the office. In a provincial town he often completed his articles with no knowledge of history or design, and once plunged into practice he never learned. The result was seen in the deplorably low standard of design throughout the provinces, and is still seen in what one may call the routine building of our smaller towns.

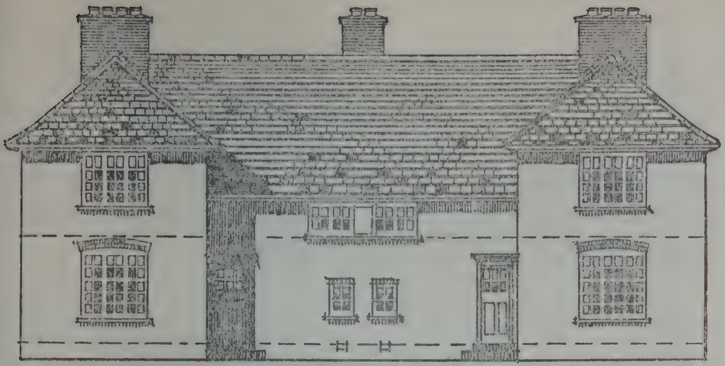
The school training must influence the work. Many of the men who are passing through the schools now, or who have recently done so, will practise in the country towns of England, and we can, without being over-optimistic, believe that their standard will be a much higher one than that of their preceding generation practising in similar places. Planning is now a scientific study and not the haphazard business of twenty or thirty years ago.

The working-class houses, as arranged in the great post-war housing schemes, while leaving very much to be desired, are a great step forward from those of

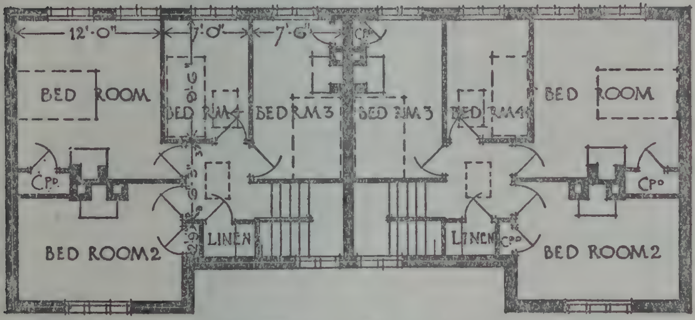


EYFORD PARK, GLOUCESTERSHIRE.

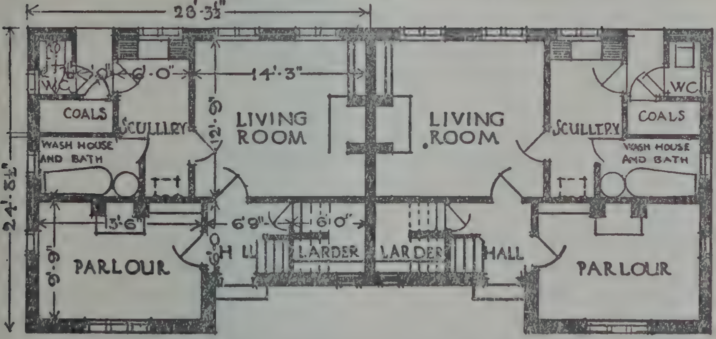
Architect: GUY DAUBER.



FRONT ELEVATION



FIRST FLOOR PLAN

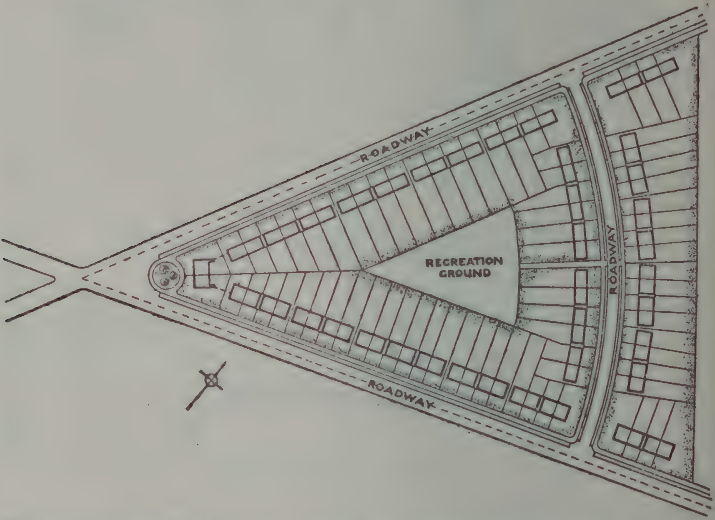


GROUND FLOOR PLAN

A MODERN WORKING-CLASS HOUSE OF FOUR-BEDROOM TYPE.

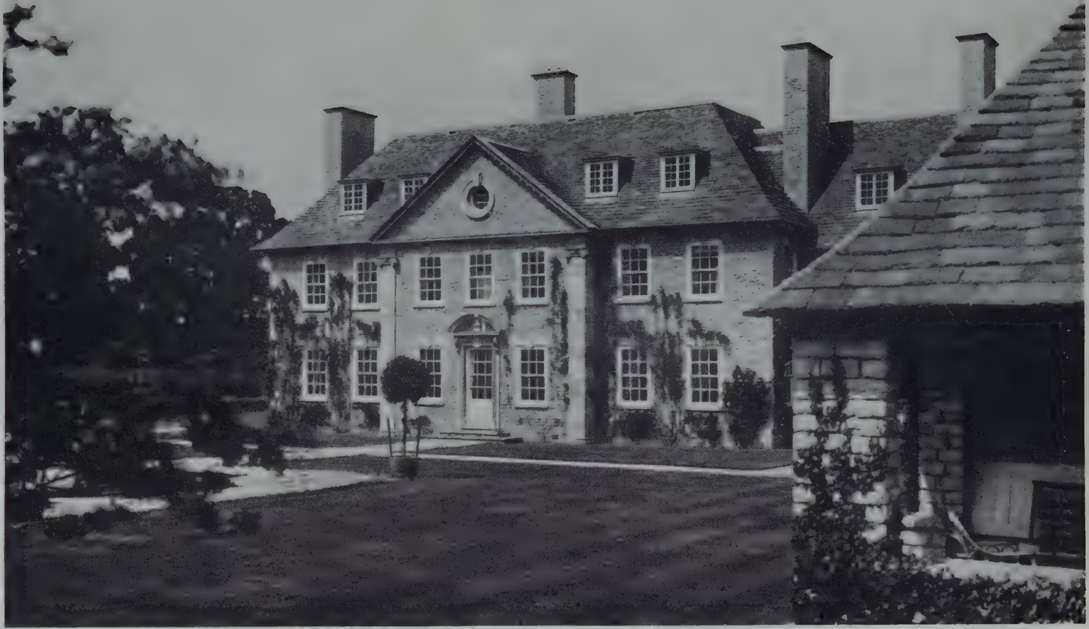
(Ministry of Health Manual.)

twenty years ago. The restriction of density is in itself a most important factor, and the modification of obsolete bye-laws almost equally so. No one familiar with the whole question can deny the immense improvement in amenity, comfort and appearance.



EXAMPLE OF SMALL LAY-OUT OF MODERN HOUSING SCHEME.
(From Ministry of Health Manual.)

An important point, and one that has been discussed on many occasions, purely academically, is the possibility of control of new buildings on æsthetic as well as constructional grounds. While it is possible to imagine some such control being practicable in the large cities, it is impossible in the writer's view that such a system could be organized in the smaller urban and in the rural districts. The difficulty of getting the right people and



BURDOCKS, FAIRFORD.

Architect: GUY DAUBER.

the cost are obstacles which in the present state of industrialized civilization could not be overcome. The idea is one with considerable attractions, but impracticable.

NEW MATERIAL

As has been pointed out in the introductory chapter, the use of material has always been a very important factor in developing a style. It may be that future buildings in this country, especially large buildings, will develop on new lines if concrete becomes more generally used. Up till recently concrete has usually been concealed behind stone or plaster, and where it has been shown has been constructed to imitate stone. This treatment is deplorable and is shirking the true issue. If concrete is to be the building material of the future it must develop a distinct treatment which shall show the material honestly, and which shall compare artistically with stone or brick. If concrete cannot do this, if its limitations are too great, then it must be relegated to a subordinate position for use in foundations, etc.

Certain recent buildings, especially perhaps those at Wembley, have given a suggestion as to the possibilities of the treatment of concrete. These are quite frank and express the material truly, and there is no slavish imitation of stone. The design emphasizes the construction.

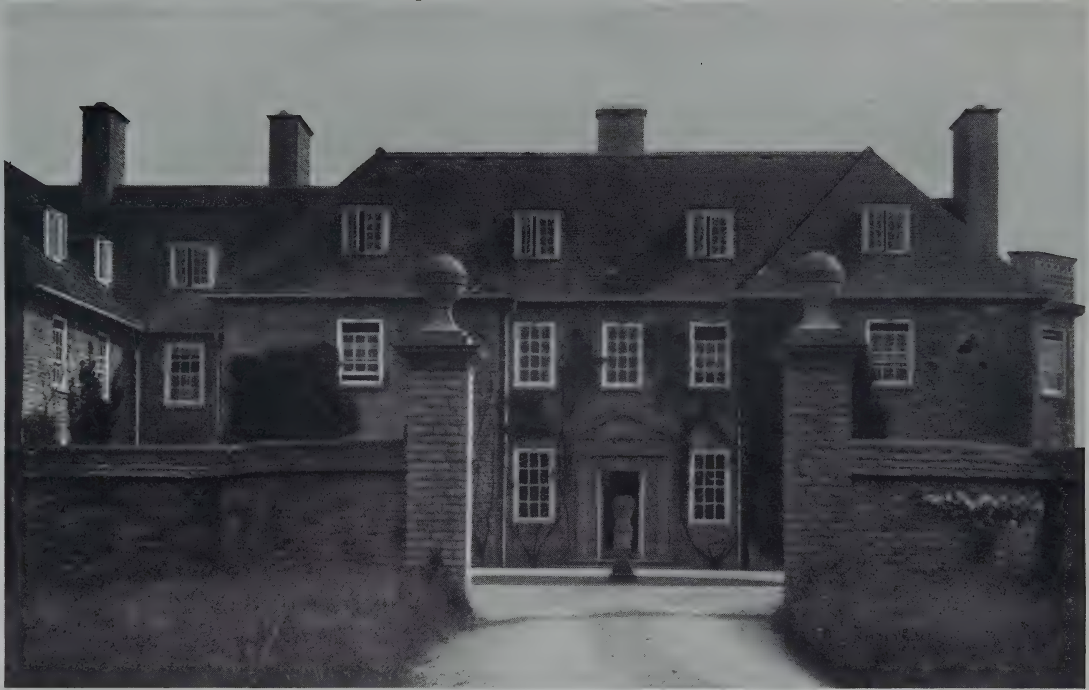
In engineering works, especially in bridges, we find the same quality. We are still in the experimental stage in this matter – rather in the position of Rome when the arch was first introduced – nobody quite knows what is going to happen. It would be rash to prophesy on the data that are so far available. There is at least, one must feel, a possibility of growth here which may be far-reaching in its results.

Flying may alter our ideas of planning very much in the near future. If flying becomes an everyday business of life, obviously the plan of cities will be greatly affected. Big open spaces will be needed, or buildings with large flat roofs of sufficient size for aeroplanes to land on and take off from. This is, perhaps, more a question of town planning than of architecture, but it certainly would affect the design of buildings also.

The whole future of our English architecture, then, must depend on the lines on which our civilization develops. If the industrial machine is breaking down, as many think it is, rural life may again become as important as it was in Elizabethan times. Such a development of national life would profoundly influence our architecture. Another great war might put Europe back into a condition like that of the Dark Ages, in which case architecture would be left to take care of itself.

England may pass through another glacial epoch, and life in this country may not be possible, or at least so difficult as to cause all the energy of the time to be concentrated on the mere struggle for existence.

A milder disruption may be caused by a revolution on Socialistic lines. Apart, however, from any such cataclysms, and assuming that civilization is going on much as it is but with a progressive movement towards a better condition of life for the majority, we may feel hopeful about the future of architecture. As has been said, it does not seem possible that a national style on new lines can ever arise. The future is likely to proceed



BURDOCKS, FAIRFORD.

Architect: GUY DAUBER.

on the lines of present development, which has been indicated at the beginning of this chapter, but it can be hoped, reasonably, with an ever-improving average standard, and a gradual elimination of the sham and meretricious as the education of architects and the general citizen improves. This is the writer's view.

TOWN PLANNING

The study of the growth of our towns is one of great fascination. To trace the whole development of a city from its early beginnings of a cluster of dependent dwellings grouped round the castle or cathedral (for in such a way most towns had their origin), up to modern times, is a most absorbing branch of architectural history. It is, however, a vast field and can only be touched on in an outline history of this nature.

Up to the end of the eighteenth century the plan of a normal English town was fairly convenient and worked well in relation to the social and economic conditions of its day. This is still true of many villages, small market, country and seaside towns. This is not to say that the mediæval towns and those of the Renaissance period had no faults – they had, and serious ones. Their sanitation and water supply, their lighting and refuse disposal were of the most primitive and sketchy sort. But these faults, in fact, were more defects in the nature of what we now generally term the services, than in the main lay-out of the town itself.

The towns up to this time were small; their traffic presented no difficult problem, and their necessary expansion was usually simple enough.

With the great industrial movement of the nineteenth century, and its consequent rapid growth of the industrial towns, an entirely new problem arose.

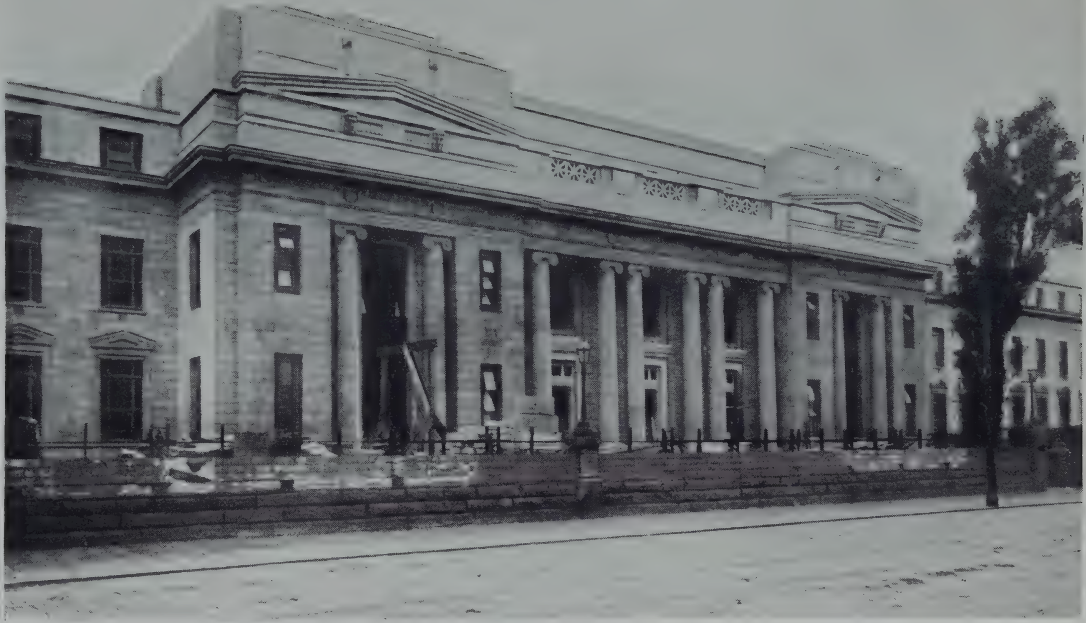
No one seems to have thought of any control over the casual development that took place. Factories, houses, railway stations, docks, shops and all the other units of a great city were put up here and there wherever the greatest personal advantage to the interested parties could be obtained.

The shocking state of our industrial towns to-day is the deadly result of this lack of foresight on the part of those of only a generation or two away, who considered themselves highly cultured and public-spirited. Possibly they were; but they were amazingly lacking in vision.

All who have considered the modern position, in even a superficial way, realize that this chaos must be reduced to order; that this haphazard development must cease. This, then, is the function of town planning.

The question, 'What is town planning?' is often asked. It has been defined by Mr. George L. Pepler, probably our leading authority on the subject, as 'the control of the use of all land, in accordance with a plan having as its definite objective the greatest common good.' This is as excellent and concise a definition as can be given.

The evils of our towns to-day are too obvious to need much emphasis. Large areas are occupied by houses in close proximity to factories. Railway termini and docks are often most inconveniently situated, and streets have to carry a volume of traffic vastly in excess of their capacity. The sites of many enterprises act and react

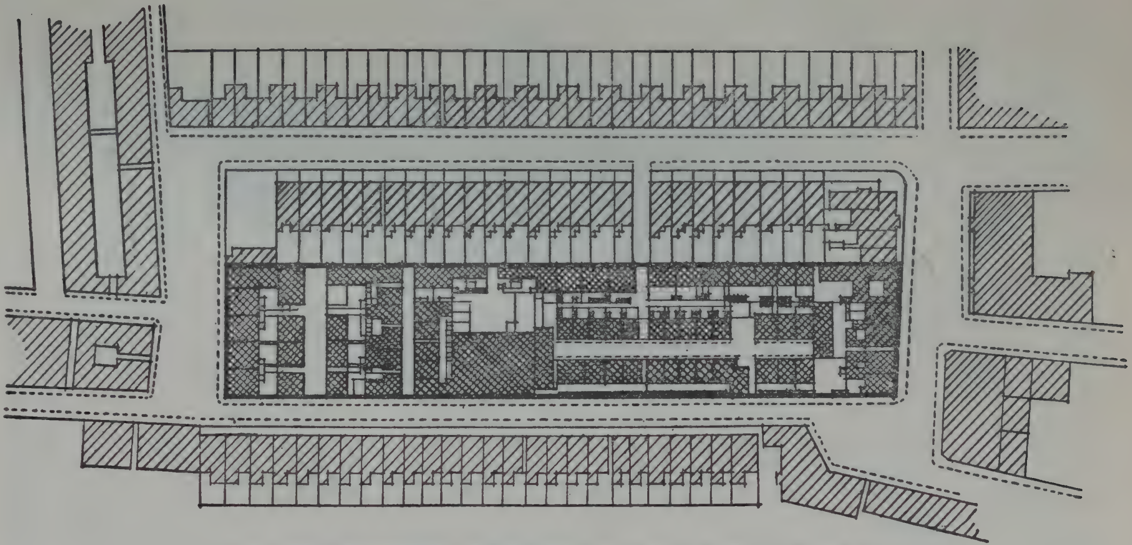


UNIVERSITY COLLEGE, DUBLIN.

Architect: R. M. BUTLER.

SUGGESTED METHOD OF DEALING WITH AN UNHEALTHY AREA IN A CITY.

(*Ministry of Health Manual.*)



Area before improvement. The unhealthy area is defined by a thick black line.

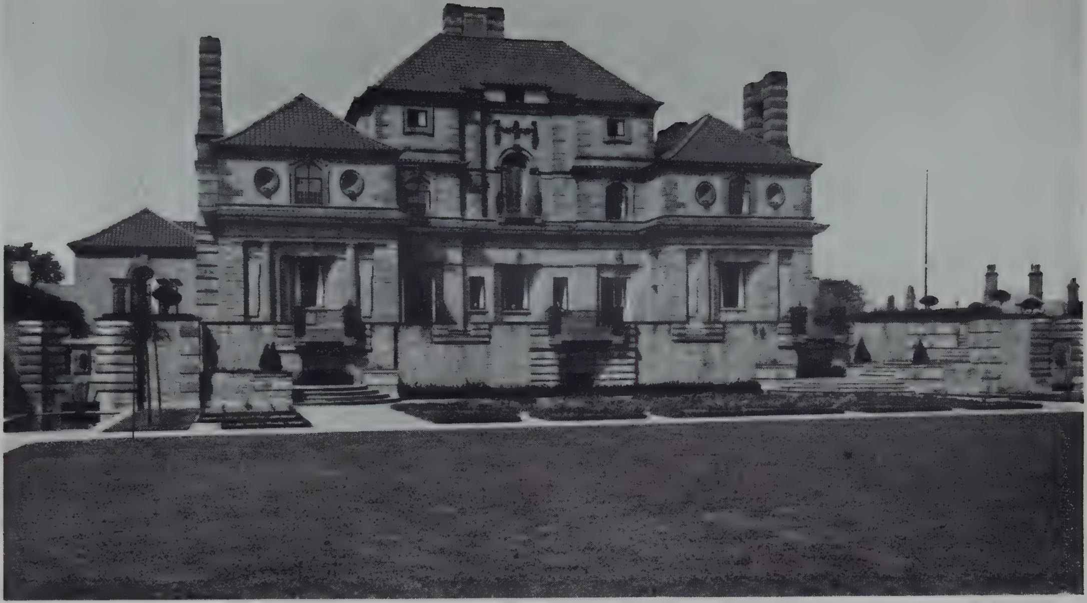
upon each other to their mutual disadvantage. The placing of the factory in areas full of working-class homes, and the consequent injury to health by the loss of sunlight due to smoke, is one of the most serious aspects of the whole question.

The economic wastage is appalling, the lowering of the general health standard is almost incalculable and can hardly be exaggerated. The difficulty of mental and moral improvement is insurmountable under such conditions. Is it possible to expect anything but a low standard of conduct and mentality from those whose whole life is spent in our vast slum areas with their rows of soul-destroying, drab streets, their factories, dump-heaps, and their perpetual pall of smoke? It is amazing that the general conduct of people among such surroundings is anything like as good as it is. That it is so good is a great tribute to the character of the British people.

Very considerable interest in the whole question has been aroused in the last few years, and local authorities are, generally speaking, becoming acutely alive to their responsibility in the matter. Under the Town Planning Acts of 1909 and 1919 they are given very wide powers, and large numbers of schemes controlling future development have already been approved. All local authorities with a population of over 20,000 are compelled to prepare a scheme by 1929 for the approval of the Ministry of Health.

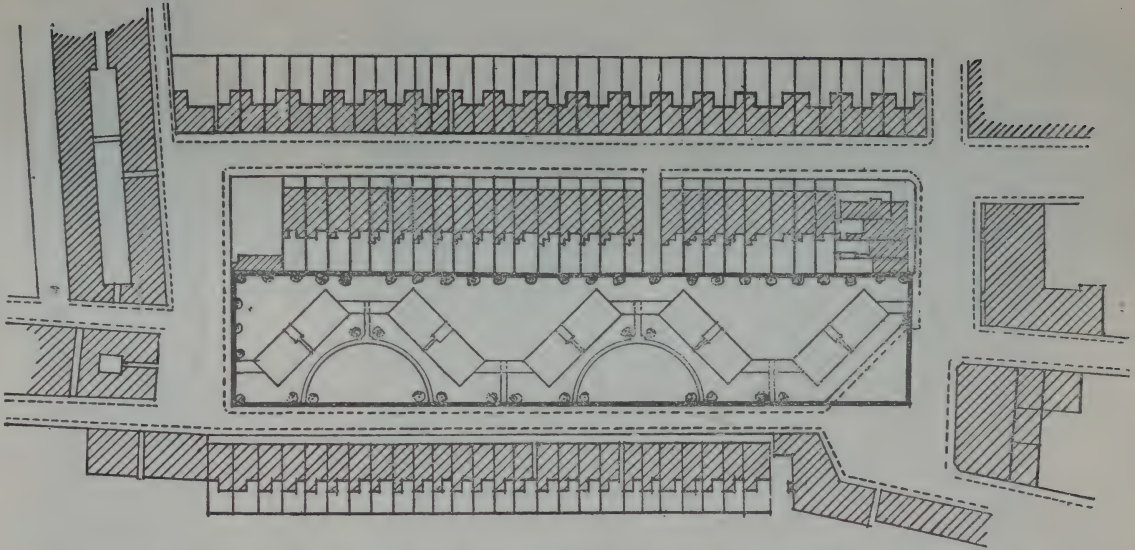
This is all to the good, and a first step in the right direction.

The main principles of town planning, as recognized by the leading authorities, are simplicity of arrange-



HEATHCOTE, ILKLEY.

Architect: SIR EDWIN LUTYENS.



Area after improvement. The area has been wholly cleared, and as it is assumed in this case to be desirable to re-house on the site a large proportion of the displaced persons, three-story blocks of flats are shown.

ment, and to lay down the lines of general development; but (and this is important) to provide for control of future local development within the main outlines. The initiative, it is agreed for the latter, should rest mainly with those concerned with estate growth, and a wide margin must certainly be left for the readjustment according to new ideas that are likely, indeed are certain, to be brought forward.

Town planning, while definite on its main lines, must be elastic if it is to serve a real purpose in the future of the country. It must leave plenty of scope for imagination; and have a vision of probable future alterations in social and economic conditions.

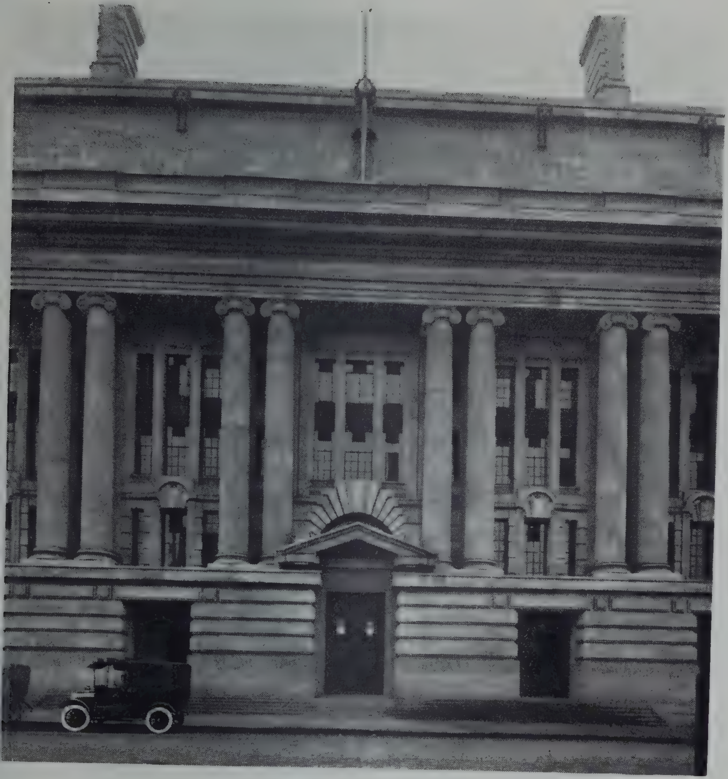
Before a town plan can be made it is clear that a great deal of information must be collected. On the intelligent collection of such data, and its subsequent application, the success or failure of the plan, in relation to the general efficiency of the area concerned, must obviously rest.

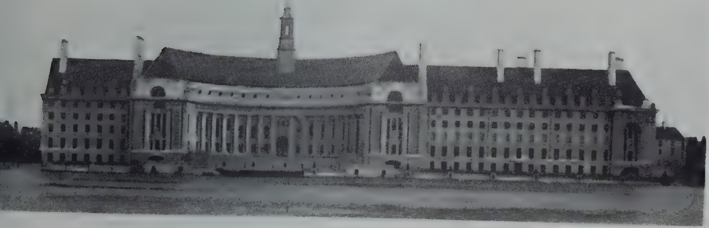
The first necessary step, then, is to collect such data. This process is now known as a civic survey.

A civic survey is a difficult matter, and, unless carried out with a sympathetic understanding of local conditions, is likely to lead to confusion worse confounded.

It must be organized with proper care. All sorts of people representing diverse interests are only too ready to furnish data. Many of them must be regarded with suspicion, and their facts are only to be accepted after the closest examination and with great caution.

One person must be in control, so that the facts received can be co-ordinated and classified in their





LONDON COUNTY COUNCIL HALL.

Architect: RALPH KNOTT.

correct relation, one to the other. Such co-ordination is essential.

The main lines of a survey of this nature will probably include some such features as are given below.

It is essential that the data shall be recorded in such a way that its purport can be considered together, and the facts set forth correlated and be capable of every comparison. A great deal of the information required exists in some form or another, but it must be presented in such a way as to be homogeneous and complete and, most important, to be comparable.

All the most careful collections of facts, unless presented in such a form as to make a document showing the whole view, are useless.

A definite tale must be told.

The information required should, at least, record:

The topography and geology of the area.

The contours and subsoil nature must be indicated, as they will be found to affect development when compared with other information on different lines.

The historical growth must be studied. Economic changes and growth will be brought out here in a way that may be of importance in the future control.

The use of various areas. Where the different industries are placed. Why were they placed there? Could they be better placed? This is all-important, as it may affect the future arrangement of industrial development.

Are the housing areas in the best position? Has this been considered, or is it merely haphazard?

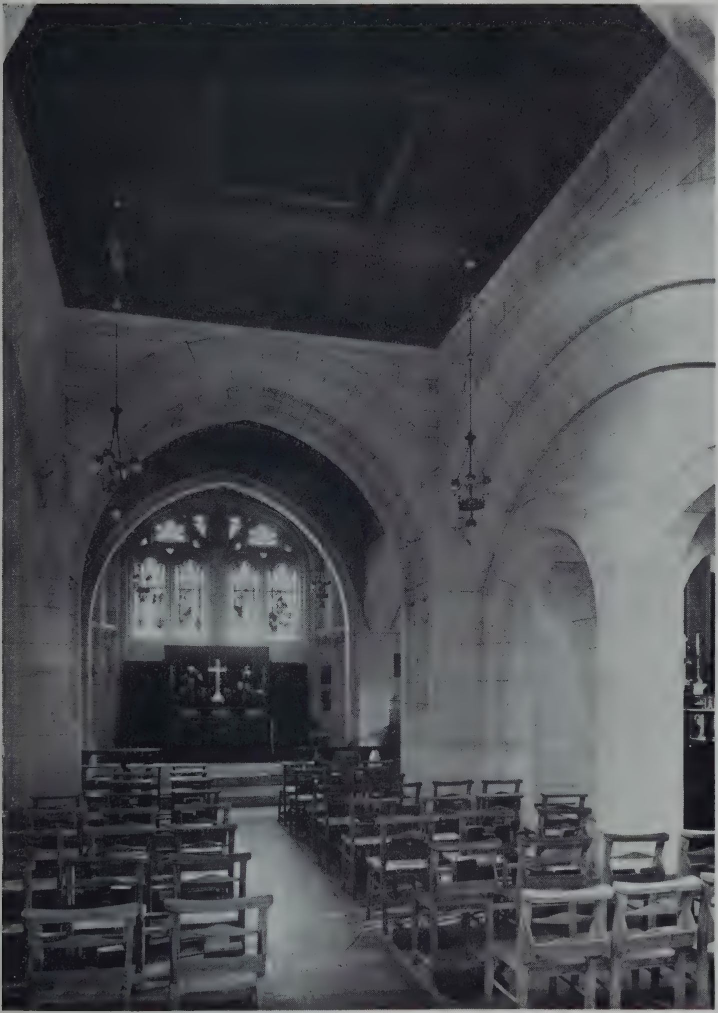
The traffic routes. Are there any special difficulties? Are increases in any special form of traffic likely? Times from a certain radius to the town should be noted, especially in connection with the passenger traffic: in this connection time statistics are more important than distance. For instance, if you live 10 miles from a town and can get there in 20 minutes, you are really nearer than a person who lives 6 miles away and who can get there in 30 minutes. Distances should be considered in relation to time rather than mileage.

A great deal could be written on these lines suggesting the information required before a town plan can be prepared; but the general reader would not be much enlightened. An indication is all that is aimed at here, to show the broad lines on which intelligent opinion regulating the whole question is proceeding.

One can regard the present position as being most hopeful and giving reason to believe that a vastly better state of city arrangement will be an accomplished fact in the near future.

One of the most important aspects of town planning is the development of communications. As a scheme will lay down the future of an area, so the necessary communication will become obvious and provision made for their expansion. Road transport is certainly going to be a far more important thing in the future – so the improvement and widening of old roads and the future position of new becomes an important factor. All kinds of side issues come in here. Is the 'bus going to conquer the tram (in the writer's opinion it is), or are the two going to be developed together? This will certainly affect your road, and the individual judgment in such a case may be most important later.

All sorts of questions must be considered – practical, legal and æsthetic. The town plan expert requires to be



ST. DAVID'S, EXETER.

Architect: W. D. CAROË.

an architect, an engineer, a lawyer and a landscape gardener at least. He should be many other things also, and the future may show a new type of profession in which a partnership of such diverse professions will be a recognized thing.

REGIONAL PLANNING

It is quite obvious that one local authority, say, a small rural district, might produce a town plan which would be an excellent one from its own point of view and control its own future development in a reasonable way. Some features of such a plan, however, might be, and very likely would be, most detrimental to another area in close proximity. The present tendency is for a group of local authorities, whose interests are bound up socially and economically, to make a joint town plan which shall provide for the future control of their mutual interests, and ensure that no local arrangement of one area shall be detrimental to that of another. This movement is well under way, and already joint town planning committees numbering nearly thirty, some of them composed of from ten to twenty local authorities, are in existence. A few of these committees include a far larger number of local authorities. Manchester, for instance, takes in ninety-eight, covering over 600,000 acres; Leeds includes forty, covering over 200,000 acres. The value of this movement must be enormous in the near future.

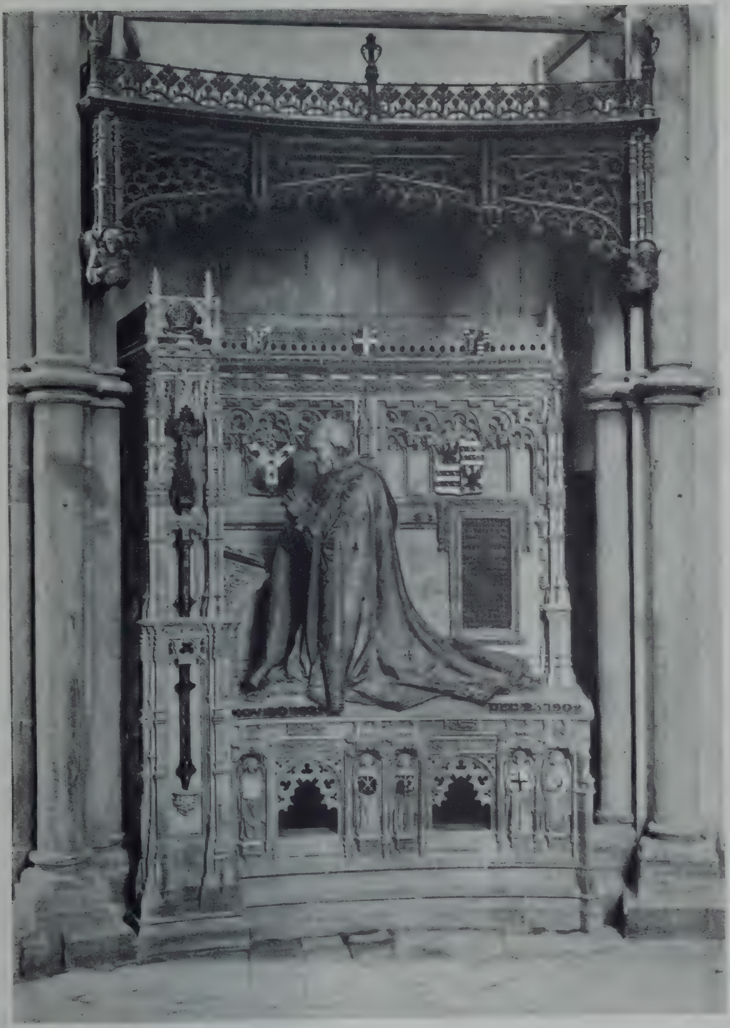
Mr. Pepler has written the following explanation of his diagram of a model town and its traffic routes:

'A suggested system is indicated which incorporates the idea, recommended by Dr. Unwin, of dividing up the town into a series of well-defined wards, more or less self-contained as regards the minor public buildings, so that local identity may be enhanced and good citizenship encouraged, because the inhabitants will not feel lost in a huge unarticulated agglomeration.

'The town and its wards should provide accommodation for about 140,000 inhabitants, and their industries. A place quite large enough to support first-class cultural institutions. Also the parts are compact and therefore economy is achieved in respect to roads and other public services; the usual ugly sprawl over the countryside is avoided, and plenty of land for recreation and food production lies at hand.

'An important point is the wide inner circle, with a diameter of about three-quarters of a mile, enclosing the main centre of the town. This should not only be made into a park-way, so that all entering the centre may enjoy a glimpse of green, and the business man may have a pleasant promenade accessible in his luncheon hour, but also it should form the means of circulating all omnibus or tram traffic, none of which should be allowed to pass inside this girdle to cause congestion of the busy centre. Public buildings and theatres, placed in this circle, would not only have a fine setting but the transport of the crowds that thronged them would be enormously facilitated.

Another important planning point is the provision of playgrounds within easy reach of all houses, *inter alia*, so that children may have places to play in other than the streets, and a grave traffic danger may thereby be removed.



CANTERBURY CATHEDRAL.

ARCHBISHOP TEMPLE'S TOMB.

Architect: W. D. CAROË.

'The principal dimensions are figured on the diagram, and therefore need not be referred to in the text, but once again it is well to emphasize that it is only a diagram, shown principally to suggest the spacing of main arteries, and nothing so hard and fast, even as a framework, is suggested as a place fit for human habitation.

'Many items of a town are purposely omitted from the diagram, and all detailed planning, by which any amount of variety could be introduced. It is only illustrated as a suggestion for a main arterial system.

'Contours, a river, or an existing railway, are a few of the factors that would modify its application profoundly.'

SIZE OF TOWNS

Many of our towns are too large – they cannot be worked with efficiency and a proper regard for the amenities. Consequently, the best opinion of the day is rather in favour of development by means of satellite towns rather than by urban or suburban development. This is the general idea at the back of the Garden City Movement.

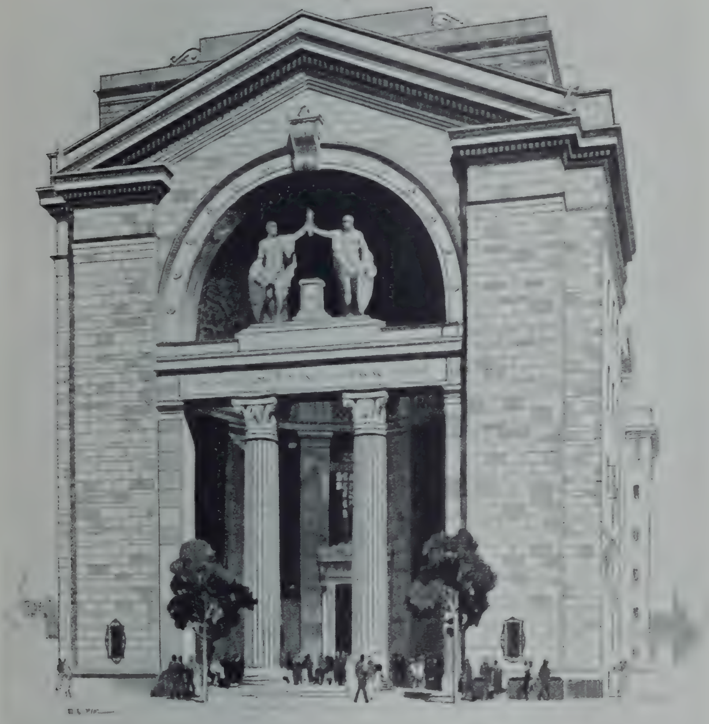
What should be the maximum size of a city? This seems to depend upon the underlying social conditions. Certain industries seem to show that a collection of people numbering perhaps 100,000 engaged in that industry indicate a definite economic advantage over one half its size. But this question is not one of size only. It is certainly undesirable that any large group of people should live in an isolated way entirely concerned with one industry. The great colliery areas are examples of such detrimental conditions, and a narrowness of vision is inevitable in such cases. The balance is lost, the outlook becomes uneven, the political and social judgment is warped. The last five years alone give ample proof of this. People so situated are not inclined to be good citizens – their views are distorted; and the State, as a whole, is thereby weakened.

There is no space here to discuss this more fully, but the importance of the satellite town and the garden city may be very greatly emphasized in the near future. At present the question is mainly one of theory; it will be certainly in the near future one of fact.

OPEN SPACES

The number and size of open spaces and their distribution for purposes of rest and recreation is one of which the importance is being more realized yearly. Most towns – in fact all large towns – have far too few. It is difficult to arrive at anything like a rule as to what a reasonable minimum should be in relation to area and population – probably it is not even desirable to do so, as the spaces required must be affected, obviously, by local conditions, situation and environment. A seaside town with a good beach would, for instance, clearly require far less open spaces than would an inland town of the same size which had closely cultivated land immediately surrounding it.

The experts vary considerably in their views, but the average of present opinion seems to suggest that there should be about 1 acre of open space to every 200



BUSH HOUSE.

inhabitants. This is perhaps rather on the generous side.

Playgrounds for children should not be far apart – say, not more than half a mile, as it has been found by experience that children living more than a quarter of a mile from a playground do not visit it regularly.

Many of the large towns – Edinburgh, Bradford, Middlesbrough and Bolton, for example – do not lack a reasonable acreage of open spaces, but the fault lies in their distribution. This is a very important point to be considered in a town plan.

TOWN SURROUNDINGS

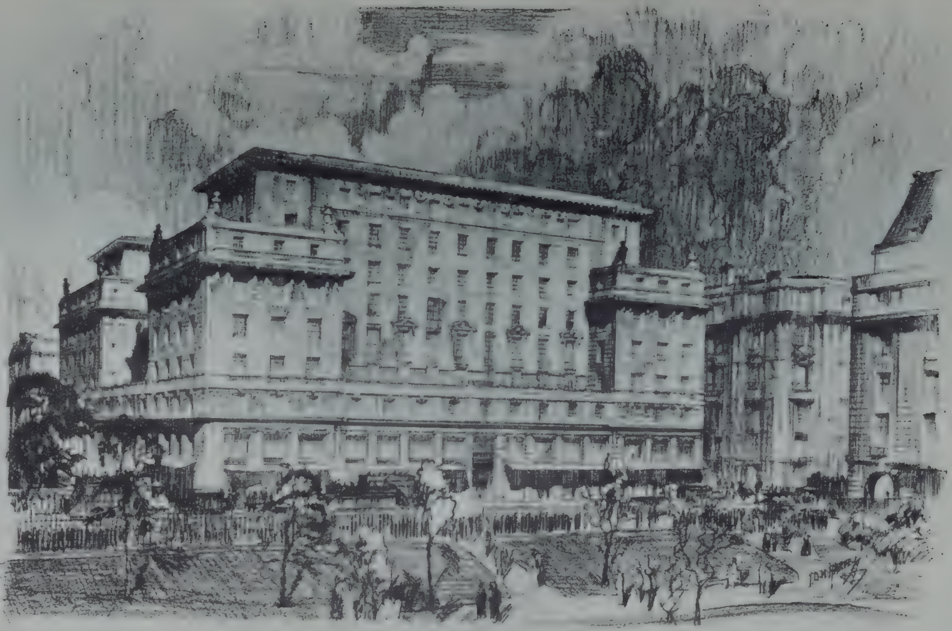
The increase in the proportion of urban population to that of the country on the whole is worthy of note. In 1851 the town and country population in England were about the same number. At present 80 per cent. of the population is situated within urban districts and only 20 per cent. in rural. It is true that such figures are rather misleading, as many urban districts are largely rural in character over parts of their areas. It shows, however, how much more important urban government has become in the last generation or two, and how urgent is the need for a proper control of the future of this large majority of the population.

Further, the townsman is becoming more so in each generation – generally he is entirely ignorant of agriculture and rural interests, and is being reduced to a specialized type: there is a possibility that this development may become a danger. The rapid deterioration of country stock when brought into industrial towns is a matter of common knowledge. There are numerous other aspects of the question which we cannot touch here.

All authorities are in agreement that a larger percentage of the population should be engaged in agriculture than is now the case. The balance must be readjusted.

How can this be done? The considered opinion of most of those in this country and elsewhere who are regarded as authorities is all in favour of maintaining a permanent agricultural belt round the town, which area can in no circumstances be built on. The type of agriculture carried on in this belt would, so far as the soil and climate allowed, be given up to producing perishable articles of food where shortness and rapidity of transport is necessary. Dairy farming, fruit and vegetable growing would obviously play an important part.

What, then, of future expansion. It is now certain that unlimited expansion is a most serious menace, and it must be controlled. Probably about 200,000 is as large a population as can really be efficiently and economically provided for in a town. It is, of course, impossible to reduce our great towns to any such universal maximum figure, but we can control further growth and provide for a permanent agricultural belt. Growth after that would have to be by means of satellite towns with special transport facilities as necessary to the parent city. This, to a limited extent, is actually happening to-day. It is the only solution to the housing question in connection with certain types of industry where juxtaposition to the works is a source of injury to health.



Devonshire House, Piccadilly

GLOSSARY OF ARCHITECTURAL TERMS

NOTE. – *Technical terms explained in the text are not included here.*

Acanthus: a plant, whose leaves, conventionally treated, form the lower portions of the Corinthian capital.

Aisle: the lateral divisions which run parallel with the nave in a Gothic cathedral.

Apse: the circular or multangular termination of a cathedral choir, the term being firstly applied to a Roman basilica. The apse is a continental feature, contrasting with the square termination of the English Gothic work.

Arches are of various forms, usually of small stones or bricks spanning an opening in a wall.

Architrave: the beam or lowest division of the entablature which extends from column to column. The term is also applied to the moulded frame which bounds the sides and head of a door or window-opening.

Archivolt: the mouldings on the face of an arch resting on the impost.

Ashlar: squared stonework in regular courses in a wall.

Astragal: a small semicircular moulding.

Attic: a term applied to the upper story of a building above the main cornice; also to low rooms in a roof.

Ball-flower: the characteristic ornament of Decorated Gothic architecture.

Baluster: a small pillar or column supporting a handrail.

Base: the lower portion of any construction.

Basilica: a term applied to a large hall for the administration of justice.

Bay: the divisions into which the nave of a church is divided.

Belfry: the upper room in a tower in which bells are hung.

Boss: a projecting ornament, placed at the intersection of the ribs of ceilings, whether vaulted or flat.

Broach-spire: a spire rising above a tower without a parapet, as in Early English work.

Buttress: masonry projecting beyond the face of the wall to resist the pressure of an arch or vault.

Byzantine architecture: the style evolved at Constantinople (or Byzantium) in the fifth century.

Canopy: a covering over niches, tombs, etc.

Capital: the upper portion of a column or pilaster.

Chancel: the portion set apart for the clergy and choir and separated from the body of the church.

Chapels: places of worship, in honour of particular saints.

Chapter-house: usually opened out of the cloisters on the eastern side. The place of assembly for the dean and canons of a cathedral for the transaction of business.

Choir: as described in chancel.

Clerestory: the upper division in the nave of a church above the triforium, derived from the French, clair = light.

Cloisters: a square open space, surrounded by covered passages, connecting the cathedral to the chapter-house, refectory, etc., of the monastery to which they were attached.

Coffers: panels formed in ceilings, vaults, or domes.

Column: a vertical support, consisting of a base, shaft and capital.

Corbels: blocks projecting from a wall and supporting the beams of a roof.

Corinthian: the third order of Grecian or Roman architecture.

Cornice: the upper portion of the entablature.

Cortile: the Italian name adopted in English for the internal courtyard, surrounded by an arcade.

Crocket: projecting leaves or bunches of foliage used in Gothic architecture to decorate the angles of spires, canopies, etc.

Crypts are vaults, entirely or partly beneath a building. In churches generally beneath the chancel. They were used as places of burial.

Cupola: a spherical roof, rising like a cup over a circular or multangular building.

Cusps: the trefoil, quatrefoil, etc., terminations of Gothic tracery.

Dentils: tooth-like ornaments in the Ionic and Corinthian cornices.

Details: a term used in connection with mouldings, etc.

Diaper: any small pattern repeated continuously over the wall.

Dog-tooth: an ornament resembling the name, specially occurring in Early English work.

Dome (Duomo=Cathedral): the custom in Italy being to erect cupolas over churches, the word 'dome' in English and French has passed from the building to this form of roof.

Doric: the earliest 'order' of architecture.

Dormer: a window in a sloping roof.

Dripstone, also label and hood-mould, is a projecting moulding in Gothic architecture placed over doorways, windows, etc., to throw off the rain.

Early English: the first of the divisions of Gothic architecture, which was evolved during the thirteenth century.

Eaves: the lower portion of a roof projecting beyond the wall.

Echinus: properly the egg-and-dart ornament originally used in the Ionic capital; also used for the projecting ovolo of the Doric cap.

Elevation: flat, geometric view of a building, or one side of an interior.

Entablature: that portion of a structure supported by a colonnade.

Façade: front view or elevation of a building.

Fan-vault: a system of vaulting peculiar to English Perpendicular work, the ribs having the framework of a fan.

Finial: the top of a pinnacle, or other architectural feature.

Flèche: a term applied to a wooden spire.

Fluting: the vertical channelling on the shaft of a column.

Flying-buttress: a buttress springing by an arch over the aisle of a church to take the thrust of the nave vault.

Frieze: the middle division of the entablature.

Gable: the triangular portion of a wall, marked by the line of the roof. (In Classic architecture called the pediment.)

Gargoyle: a projecting water-spout in Gothic architecture.

Groin: the angle formed by intersection of vaults.

Half-timbered construction: a structure formed of wooden posts, filled with brick in between.

Jambs: the sides of the openings of doors and windows.

Keystone: the central stone of an arch.

King-post: a beam extending from the ridge, supporting the tie-beam in the centre.

Lancet arch: a sharp-pointed arch in use during the Early English period.

Lierne: a short intermediate rib in vaulting.

Lintel: the piece of timber or stone that covers an opening.

Loggia: a gallery open to the air, roofed and forming a shelter.

Mosaic: a way of forming decorative surfaces with small pieces of stone or glass.

Mouldings: the curves given to projecting members of stone or wood.

Mullions: the vertical members in stone, wood, or brick to divide Gothic windows into numbers of different lights. Applicable also to similar members in screens, etc.

Nave: the central division of a church, west of the choir.

Newel: the central shaft supporting the steps of a circular staircase; also applied to the post in which the handrail is framed in a wooden staircase.

Niche: a recess in a wall or buttress for the reception of a statue.

Norman: the style which preceded the Early English in this country, introduced about A.D. 1050.

Ogee: a term applied to a common form of moulding in stone or wood.

Order: in architecture, signifies a column, with its base, shaft and capital, and the entablature which it supports (see Introduction).

Oriel: a window, corbelled from the face of a wall by means of projecting stones; of great variety of design.

Panel: the compartments formed by the framing of timbers or stone.

Parapet: the portion of the wall above the roof.

Pediment: in Classic architecture the triangular termination of the roof.

Peristyle: a range of columns surrounding a court.

Perpendicular: a phase of English Gothic evolved from the Decorated style, and in use during the fifteenth and sixteenth centuries (see those chapters).

Pier: the mass of masonry (not a column) supporting an arch or beam, etc.

Pilaster: a pillar projecting about one-sixth of its breadth from the wall.

Pinnacle: a small termination, placed on the top of buttresses or elsewhere, often ornamented upon its angles.

Piscina: a small niche near the altar, with a hole in the bottom to carry off the water in which the priest washed his hands and in which the chalice was rinsed.

Plan: the representation of a building showing the distribution of its parts in horizontal section.

Plinth: a low square step on which a column is placed – the defined base of a building.

Podium: a low pedestal wall, usually below a column.

Portico: the space enclosed within columns and forming a covered vestibule or porch.

Quatrefoil: in tracery a circular panel divided into four leaves.

Renaissance: the re-introduction of Classic forms in architecture, all over Europe, in the fifteenth and sixteenth centuries.

Rib: a term used in Gothic vaulting.

Rococo style: a debased application of Renaissance.

Romanesque: see definition in special chapter.

Rustication: a method of forming stonework with a roughened face, employed in Renaissance buildings.

Screen: a partition or enclosure of wood, often elaborately carved, and separating the choir from the nave, or in domestic work the hall from a passage.

Section: a term to express the representation of a building, cut into two parts by a vertical plane, to show the construction.

Sedilia: the seats for the priests, generally of masonry placed in the wall on the south side of the chancel.

Shaft: the portion of the column between the base and capital.

Soffit: the ceiling; the underside of any architectural feature.

Spandrel: the triangular space between the curve of an arch and the square enclosing it.

Spire: the pointed termination to the tower of a church in Gothic architecture.

Stalls are divisions or fixed seats for the clergy and choir. The bishop's seat is called the throne.

Steeple: the term applied to the tower of a church, including the spire.

Story: the horizontal divisions of a building by means of floors.

Terra-cotta: earth baked or burnt and formed into moulds, and used ornamentally or for plain walling.

Trabeated: a style of architecture, such as the Greek, in which the beam forms the main feature.

Tracery is the ornamental pattern-work in stone, filling the upper part of a Gothic window. Also applied to work of the same character in wood panelling.

Transept: the part of a church projecting at right angles to the main building.

Transoms: the horizontal divisions to the windows.

Trefoil: a term applied to the distribution in Gothic tracery of certain parts of an arch.

Triforium: the space formed between the sloping roof over the aisle and the aisle vaulting, and having no windows.

Turrets: small towers often containing staircases.

Tympanum: the triangular space within the cornices of a pediment.

Vault: an arched covering in stone or brick over any space.

Vestibule: an ante-room to a larger apartment.

Volute: the scroll occurring in the Ionic and Corinthian capitals.

Wheel-window: a circular window, whose mullions converge like the spokes of a wheel. Sometimes called a Rose window.

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